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LAND FORCE

COMMAND

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FOREWORD

This publication represents a firm commitment by the Canadian Army to a bold and fundamental shift in the way that we view and will deal with the dynamic challenges of command in the Information Age. Changes should not be entirely unexpected—the recent past has highlighted problems with our implementation of command. Dramatic improvements in technology are also happening now. We must be able to make and implement effective decisions faster than our adversary across the spectrum of conflict.

The aim of *Command* is to provide guidance to all commanders, institutions and elements of the Canadian Army in order to adopt a uniform approach to operations as we face the challenges of the 21st Century. It is intended to be a complete reference containing both the description of what qualities are needed in a commander as well as the prescription of the various tools available to assist him in the process.

There are three fundamentals in *Command* that must be appreciated by the reader. The Canadian Army's approach to operations is consistent with the commonly accepted term Manoeuvre Warfare, which simply requires solutions to problems in a manner that will save our soldiers' lives. Second, Manoeuvre Warfare is complemented by a philosophy of Mission Command, which places emphasis on decentralizing authority and empowering personal initiative. Third, Battle Procedure is the process used at all levels in the Army in order to properly prepare and commit our soldiers to battle.

This publication encompasses current doctrinal trends amongst our allies but has maintained a unique Canadian perspective. It reflects our United Nations' experience of the past four decades; the lessons learned in conflicts of the past century and our distinct position within our international alliances. Central to this manual is the importance that we place on our individual commanders. The human component of a command system has primacy. No technology will replace it—the importance of our leaders cannot be overstated, as they alone will bring about success.

M.K. Jeffery
Brigadier-General
Commandant CLFCSC

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PREFACE

GENERAL

CFP 300(3) *Command* is organized along two main axes. First, much of the material is discursive in nature, intended to promote discussion. Second, it is grounded in sound doctrine. Chapter 6 is prescriptive, and provides common procedures for the application of command theory. This procedural text balances discussion of the more theoretical aspects of command.

PURPOSE

The main purpose of CFP 300(3) *Command* is to contribute to a common view of command (*Mission Command*) throughout the Army, upon which a more dynamic style of conducting operations and training (*Manoeuvre Warfare*) can be developed.

SCOPE OF CFP 300(3) *COMMAND*

The first chapter—The Nature of Command—provides the underlying framework for this publication, and the unique environment and nature of war. *Command* is a combat function, which derives its basis from the capabilities and experience of our officers, NCOs and soldiers.

The *Components of Command*—the human, the doctrinal and the organizational—are detailed from Chapters 2 to 5. The human component centres on the ability to get soldiers to fight based on the leadership and personal qualities of the commander. The doctrinal component, at Chapter 3, establishes the groundwork of Manoeuvre Warfare and Mission Command. The organizational component, divided into the theory and implementation of command organization, is presented in Chapters 4 and 5 respectively. This component includes the framework for operations, the consideration of deputizing of command, and describes in detail the staff, communication and information systems organized into headquarters.

The *Exercise of Command*—entitled Battle Procedure—is then developed in Chapter 6. Efficient and effective decision-making, together with flexible control, necessary support organizations and inspired leadership, is essential to exercise command. The publication concludes by placing command into its proper context within the combat functions, joint and multinational operations, and in the Information Age—subjects for your further professional study.

APPLICATION OF CFP 300(3) *COMMAND*

CFP 300(3) *Command* is based upon the fundamentals stated in CFP 300 *Canada's Army*, CFP 300(1) *Conduct of Land Operations* and CFP 300(2) *Land Force Tactical Doctrine*. These publications outline our philosophy and doctrine at the strategic, operational and tactical levels. *Command*, however, is not restricted to a particular level but is intended to give guidance and provide commonality of procedure at all levels, from the infantry section to the mechanized division. Although, the manual's primary focus is on command in war at the operational and tactical levels, the philosophy and techniques of command apply equally to any military activity across the spectrum of conflict.

CFP 300(3) *Command* has a wide scope, but it is essential that the underlying philosophy and doctrine be taught and understood from the start of a junior commander's training. This instruction should include the fundamentals and techniques of decision-making. From this foundation, integrated command and staff training must be progressively developed. The study and practice of command, including associated staff work and decision-making techniques, remains an essential component of leader development, both in training establishments and in the field army.

OFFICE OF PRIMARY INTEREST

The Director of Army Doctrine is responsible for the content, production and publication of this manual. Direct queries or suggestions to:

DAD 6 Command
Fort Frontenac
PO Box 17000 Station Forces
Kingston ON K7K 7B4

TERMINOLOGY

Unless otherwise noted, masculine pronouns apply to both men and women.

The following terminology is introduced to improve clarity:

- Manoeuvre Arm – Infantry, Armour and Aviation.
- Support Arm – Artillery, Engineers, Signals, Intelligence and Military Police.
- Support Services – Medical, Dental, Administrative, Transport, Supply, Maintenance, and Personnel Support.

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CHAPTER 1 - THE NATURE OF COMMAND

In order to properly command soldiers, we must first possess a clear understanding of the fundamental nature of command—its purpose and authority in the Canadian Army, the unique environment of command, and how command relates to leadership and management. The purpose of Chapter 1 is to develop that common understanding upon which the remainder of CFP 300(3) *Command* can be presented.

> We reposing especial Trust and Confidence in your Loyalty, Courage and Integrity, do by these Presents Constitute and Appoint you to be an Officer in our Canadian Armed Forces. You are carefully and diligently to discharge your Duty as such…[1]

WHY COMMAND?

Command is the most important activity in war. Command by itself will not ensure victory, nor drive home a single attack. It will not destroy a single enemy target, nor will it carry out an emergency re-supply. However, none of these warfighting activities is possible without effective command. Command integrates all combat functions to produce deadly, synchronized combat power, giving purpose to all battlefield activities.

Command is in the human domain. Many activities, such as information operations and battle procedure, assist the execution of command, but command alone will ensure that campaigns, battles and United Nations commitments do not degenerate into mob action. Through command, the nation has the option of recourse to military force to accomplish stated policy.

THE UNIQUE ENVIRONMENT OF COMMAND

On operations, a commander leads in conditions of risk, violence, fear and danger. He must consistently make decisions in a climate of uncertainty, while constrained by time. Uncertainty is what we do *not* know about a situation—usually a great deal. Uncertainty pervades the battlefield, in the form of unknowns about the enemy, time and space, even our own forces. In the words of Carl von Clausewitz:

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[1] Canadian Armed Forces Commissioning Scroll.

> War is the realm of uncertainty; three quarters of the factors on which action in war is based are wrapped in a fog of greater or lesser uncertainty. A sensitive and discriminating judgement is called for; a skilled intelligence to scent out the truth[2]... [Friction], that force that makes the apparently easy so difficult[3]... [adds to the confusion of conflict].

A commander should not only accept the inevitability of confusion and disorder, but should seek to generate it in the minds of his opponents. He should attempt to create only sufficient order out of the chaos of war to enable him to carry out his own operations. Much of the scope for success will depend upon his experience, flexibility, will, determination and above all, his decisiveness in the face of uncertainty. However, no military activity takes place in a vacuum. Try as he might, the commander cannot master all conditions and events affecting his command. Military forces are more complex than ever before, with a greater variety of specialized organizations and weapons. The successful commander must adapt and thrive under circumstances of complexity, ambiguity and rapid change.

The environment of command is inextricably linked to the environment of operations of that particular theatre, the strategic context, and the technological climate of that age. Therefore, a military force is unlikely to succeed unless its commander understands the environment of his command—an environment in which the activities of his force and of his adversary play but a part. In the complex conditions of contemporary conflict, commanders are increasingly likely to have to contend with a wide range of external factors such as political, legal, cultural and social considerations. Moreover, the instantaneous media saturation that is a feature of this, the Information Age, tends to accelerate the speed at which events, or public awareness of events, develop. These events often quickly inflate to crisis proportions requiring immediate action. Whether the situation is an international crisis or a fluid tactical action, we can expect the norm to be 'short-fuse' rather than deliberate situations. This applies to any military involvement across the spectrum of conflict, whether undertaken on a national or multinational basis, or under the auspices of the United Nations.

Technological improvements in range, lethality and information gathering continue to compress time and space, and create even greater demands for information. There is no denying the increasing importance of technology to command, and to command and control systems. Advances in technology provide capabilities not envisaged even a few years ago. However, this trend presents inherent dangers, particularly over-reliance on equipment. Moreover, used unwisely, technology can become part of the problem, contributing to information overload and feeding the dangerous illusion that certainty and precision in war are not only desirable, but attainable.

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[2] Carl von Clausewitz, *On War*, edited and translated by Michael Howard and Peter Paret, Princeton, NJ: Princeton University Press, 1976, p. 101.

[3] Clausewitz, *On War*, p. 121.

The human endeavour of command and the physical components of a command and control system are particularly vulnerable to the environment of the 21st Century. The increased scope of responsibility of commanding a modern military force demands a great deal of expertise from any soldier or officer placed in a position of trust. The environment *or reality* of command in today's climate must be understood and accepted as a professional challenge. This reality includes the imperatives of the Canadian Government, the technological advances of our profession, and the resulting tensions between imperatives to reduce uncertainty and operate under time constraints.

Because war is a clash between human wills, each with freedom of action, commanders cannot be expected to anticipate, with absolute certainty, the enemy's intentions. The interactive and complex nature of war guarantees uncertainty, which to the military mind can suggest a loss of control. There are two ways to react. One is to attempt to seize control through strong centralized command. The other is to accept uncertainty as inevitable and adopt a decentralized philosophy of command that places emphasis on a common intent between all levels of command and trust of subordinate commanders.

WHAT IS COMMAND?

To develop a command philosophy, the meaning of command must first be defined. The NATO definition of command is *the authority vested in an individual for the direction, coordination and control of military forces*. This defines command strictly as a noun: but command is not just the authority and responsibility vested in an individual, more importantly, it is *the exercise* of that authority and responsibility. Used as a verb, it is clear that *command* is a human endeavour, and relies more on the dynamics that exist between a commander and his subordinates than simply legal authority.

The need for command arises from the requirement of the nation to ensure that the activities of its armed forces are in concert with national policies and objectives. There is also a need within any military force to acknowledge the authority, legitimacy and direction of its commander, in order to form and maintain a cohesive fighting force. Hence, the commander derives his command from the nation, but exercises his command on the forces at his disposal. In this view, the commander is the state-sanctioned generator of military capability.

To command Canadian soldiers effectively, it is imperative that commanders understand what this soldier is. The Canadian soldier is a volunteer citizen who represents the essential attributes of the society he protects. Applicable Canadian social values and standards of behaviour, as represented by Government, must be maintained within the army. This is of vital importance in this era of world-wide unrest, military coups and military-political-economic complexity.

Command has a legal and constitutional status, codified in *The National Defence Act*.[4] It is vested in a commander by a higher authority that gives him direction (often encapsulated in a mission) and assigns him forces to accomplish that mission. These forces are organized with a strictly enforced vertical chain of command. However, other structures augment and enhance the chain of command. The societal values of the soldiers, common languages, Canadian Forces' policies that give common purpose and reassurance, and the military social framework (including our messes and institutions) that provide a familial structure are all important. The veterans and retirees in an Association who pass on their value system and ethos to the next generation of soldiers are an underrated but valuable resource. This supporting organization of beliefs, policies and groups fuels the chain of command—providing the underlying, common intent that ensures that a volunteer force possesses the necessary cohesion and will to fight effectively together.

Military command encompasses the art of decision-making, motivating and directing all ranks into action to accomplish missions. It requires a vision of the desired end-state, an understanding of military science (doctrine), military art (the profession of arms), concepts, missions, priorities and the allocation of resources. It requires an ability to assess people and risks, and involves a continual process of re-evaluating the situation. A commander must have a clear understanding of the dynamics that take place within and outside his command. Above all, he must possess the ability to decide on a course of action and inspire his command to carry out that action.

ACCOUNTABILITY, AUTHORITY AND RESPONSIBILITY

The relationship between the terms accountability, authority and responsibility often generates confusion, particularly within a hierarchical organization like the army, where subordinates are expected to implement orders issued by their superior commanders.

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[4] The National Defence Act (NDA) Chapter N-5, Part I, paragraph 19.

Every soldier and every commander, as an individual, is responsible for their actions and the direct consequences of these actions. This is a basic legal precept. Commanders are responsible to make decisions, issue orders, and monitor the execution of assigned tasks; they are also responsible for actions they knew, or ought to have known of. They must provide their subordinates with the necessary guidance and resources to fulfil their mission. These are the basic duties of command.

Commanders derive their authority from many sources, such as the National Defence Act and the Laws of Armed Conflict including the Geneva Convention. Authority gives the commander the right to make decisions, transmit his intentions to his subordinate commanders, and impose his will on subordinates. Together with this authority, commanders accept the additional burden of accountability to their superiors for the actions of their subordinates. This accountability is the complement of authority, and can never be delegated.

LEADERSHIP AND MANAGEMENT

The terms leadership and management have often been used interchangeably within the military community. Misunderstanding has been heightened by civilian firms' use of military expressions to describe business activity. They refer to their competition as the enemy; cite Sun Tzu or Clausewitz in their promotional campaigns; and incite panic by declaring war on drugs, war on taxes, etc. In short, society has adopted the high drama of the language of war in order to describe non-military activity in a powerful way. However, the executive who returns home at the end of the day has very little in common with the soldier who is preparing his defensive position for another night of hostilities. Although the terms command, leadership, control and management are closely related; it must be clear that military leadership does not equate to military management, and is wholly different from business management.

Command at the highest levels involves ultimate responsibility for a military force, which includes the consequences of military action in the civilian, political and social spheres. To be effective, a commander at the strategic and operational levels requires a wide range of qualities and skills in addition to strictly military expertise. These include an understanding of national and international politics, world economics, foreign affairs, business management and planning, and the international Laws of Armed Conflict. While the art of command at higher levels is still dependent on the timeless qualities of leadership, it encompasses a wider range of attributes, which will be discussed in detail in Chapter 2.

Command at lower levels is closely linked with a direct style of leadership. Much has been written about military leadership, and particularly leadership at unit level in war. Leadership, essentially, is the art of influencing others to do willingly what is required in order to achieve an aim or goal. It is the projection of the personality, character and will of the commander. Because of this purely human attribute of command, the emphasis of all command endeavours and discussion in this book centres on the human dynamics that exist between a commander and his military force.

Management is primarily about the allocation and control of resources (human, material and financial) to achieve objectives. In the military environment, management is defined as *the use of a range of techniques to enhance the planning, organization and execution of operations, logistics, administration and procurement.* Command incorporates leadership and management, both of which contain elements of decision-making and control. The mix of these skills is present in varying degrees, dependant upon the level of command. While command must be exercised in the differing conditions of peace, conflict and war, it is only tested under the extraordinary stresses of conflict and war.

In principle, command (in particular, *identifying what needs to be done and why*) embraces both management activities (*allocating the resources to achieve it*) and leadership (*getting subordinates to achieve it*). While management is not synonymous with command, resource allocation, budgetary responsibilities and associated management techniques have become critical considerations in an increasing number of military activities. Those who aspire to higher command and senior positions on the staff may therefore require additional study of management techniques.

COMMAND AND CONTROL

There are two traditional views of command and control. The first sees command as the authority vested in commanders and control as the means by which they exercise that authority. The second sees command as the act of deciding and control as the process of implementing that decision. These views are compatible in that they both view *command* and *control* as operating in the same direction: from the top of the organization toward the bottom.

NATO has defined control as *the process through which a commander, assisted by his staff, organizes, directs and co-ordinates the activities of the* *forces allocated to him.*[5] However, control should be viewed, not just as top-down direction, but as including the feedback from bottom-up as to the effect of the action taken. This description of control is not contrary to the NATO definition but augmentative. This clarification ties *control* into command making the term more dynamic. In addition, control is also the attempt to reduce uncertainty and increase response speed by constraining the problem and imposing relative order. As discussed earlier, uncertainty pervades the battlefield. A commander who is capable of operating in an uncertain environment, without becoming frustrated by attempting to over-control a situation, will be more dynamic in his decision-making.

To achieve control, the commander and his staff employ a common doctrine and philosophy for command and use standardized procedures (including staff work) in conjunction with the equipment, communication and information systems available. Command and control are thus closely linked with commanders and staffs requiring a knowledge and understanding of both if they are to perform their duties effectively. Command and control, however, are not 'equal partners.' Control is merely one aspect of command. In this publication, the term command therefore encompasses both command and control, except when the control aspect of command requires emphasis.[6]

COMMAND FROM A CANADIAN PERSPECTIVE

The history of command in the Canadian Army must be viewed through the lens of Canada's constitutional passage from colony to nation.[7] The army progressed from supplying large numbers of soldiers under arms to the British Army, to the formation of the Canadian Corps in World War I, and the 1st Canadian Army in World War II. While Canadian tactical ability was undisputed, there was little strategic political direction as Canada did not participate in Allied discussions that ultimately determined the course of World War II. Each service functioned independently under British direction—never as a joint force under a

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[5] In this context, this description is preferred to the definition in AAP-6: control is "That authority exercised by a commander over part of the activities of subordinate organizations not normally under his command, which encompasses the responsibility for implementing orders or directives …"

[6] For this reason, this publication is entitled '*Command*' in preference to 'Command and Control'. This is also the approach taken by the US Army in 'Battle Command' and the British Army in ADP-2 'Command'.

[7] This perspective is derived mainly from a transcript of a presentation given by Dr. W. McAndrew entitled "Operational Command and Control of Canadian Forces in Wartime."

Canadian commander. Some would argue that this planning gap at the strategic and operational levels has remained with us since. Troops are normally committed under Allied or United Nations' command with only minor Canadian involvement in the strategic and operational planning process. Strength at the tactical level is possible through tough and realistic training coupled with the provision of reasonably modern and effective equipment. This training, ruthless application of standards and insistence on skilled and principled leaders lead directly to unit cohesion and a strong sense of 'family'—the keys to tactical success.

Cohesion is the glue that solidifies individual and group will under the command of leaders. Common intent based upon mutual understanding, trust and doctrine is crucial. Cohesion allows military forces to endure hardship while retaining the physical and moral strength to continue fighting to accomplish their mission. Cohesion is equally important for the enemy. The Canadian Army's approach to operations seeks to defeat the enemy by shattering his moral and physical cohesion, his ability to fight as an effective coordinated whole, rather than by destroying him physically through incremental attrition. This is defined as *Manoeuvre Warfare*, an approach that emphasizes that our aim is to destroy our opponent's will to fight.

Our philosophy of command devolves decision-making authority to subordinate commanders better enabling us to deal with the problem of uncertainty and time. The philosophy of command that promotes unity of effort, the duty and authority to act, and initiative is called *Mission Command*.

This chapter has laid the groundwork to develop our approach to operations and our command philosophy over the remainder of the publication. This approach and command philosophy will enhance our ability to adapt to rapidly changing, complex situations, and to exploit fleeting opportunities.

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CHAPTER 2 - THE HUMAN COMPONENT OF COMMAND

Chapter 2 introduces the Components of Command by describing the most important—the Human Component. It is crucial to our success that all commanders in the Canadian Army demonstrate, teach and promote the personal qualities required of a leader. Commanders must fulfil the expectations associated with the role entrusted to them.

QUALITIES OF COMMANDERS

There is no unique formula for describing the 'right combination' of qualities required of commanders. Clausewitz, for example, described two 'indispensable' qualities of command:

> First, an intellect that, even in the darkest hour, retains some glimmerings of the inner light which leads to the truth; and second, the courage to follow this faint light wherever it may go.[8]

Sun Tzu specified five virtues of the general: wisdom, sincerity, humanity, courage and strictness.

> [I]f wise, a commander is able to recognize changing circumstances and to act expediently. If sincere, his men will have no doubt of the certainty of rewards and punishments. If humane, he loves mankind, sympathizes with others, and appreciates their industry and toil. If courageous, he gains victory by seizing opportunity without hesitation. If strict, his troops are disciplined because they are in awe of him and are afraid of punishment.[9]

Field Marshal Slim described leadership as:

> ...that mixture of example, persuasion and compulsion which makes men do what you want them to do.[10]

A successful commander requires a measured balance of cerebral, moral and physical qualities. Whatever the level of command, the foundation of successful com-

QUALITIES

Leadership
Professional Knowledge
Vision and Intellect
Judgement and Decisiveness
Willpower
Integrity

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[8] Clausewitz, *On War*, p. 102

[9] Sun Tzu, *The Art of War*, Oxford: Clarendon Press, 1

[10] FM Sir William Slim, *Courage and Other Broadcasts, Marks of Greatness. The Officer*, Lecture at West Point, London: Cassell, 1957 p. 38.

mand is good leadership, complemented by a number of essential attributes such as professional knowledge, under-pinned by integrity and example. In general, the higher the level of command, the wider the scope of qualities required and the more exacting the standard. Additionally, the emphasis *on* a particular quality, and *between* the required qualities, changes. For example, those at higher levels are likely to require greater *moral* than *physical* courage and will have increasing demands placed on their intellect. Increasingly abstract and conceptual skills including vision and the ability to communicate will complement those of leadership, judgement, initiative and self-confidence. That said, the qualities do not lend themselves to being added together to produce the composite characteristics of an 'ideal' commander. A commander with poor leadership ability, for example, despite strengths in other qualities, is very unlikely to be a good commander.

LEADERSHIP

Military leadership is the projection of personality and character to get soldiers to do what is required of them. There is no ideal pattern of leadership or simple prescription for it; different commanders will motivate subordinates in different ways. Leadership is essentially creative. The commander determines the objective and, while his staff assists, it is the commander who conceives the plan and provides the drive, motivation and energy to attain that objective. Thus as far as conditions allow, the commander should see and be seen by his troops and not let his staff get between him and his soldiers.

Basic human interest, together with insight and sincerity, will help a commander assess the characteristics, aptitudes, shortcomings and state of training of his formations and units. Above all, the commander must give his command an identity, promote its self-esteem, inspire it with a sense of common purpose and unity of effort, and give it achievable aims, thus ensuring success. Good leadership, discipline, comradeship and self-respect are all necessary for the establishment and maintenance of morale. Commanders cultivate the human element to inspire and direct the activity of their commands.

Generalship is the highest form of military leadership, and marks an officer suited for command at the uppermost levels. Generalship involves not only professional knowledge and proficiency, intellect, and judgement to a higher degree than required at lower levels of command, but also the ability to deal competently with a number of other dimensions. Most importantly, it requires the ability to think in the macro, not the micro—a genuinely strategic and operational mind. Generalship also includes an understanding of the political dimension, the ability to deliver an appropriate message through the media, and the additional responsibilities that go with joint and combined command. A general is not just one who has proven himself at the tactical level, but is truly suited to higher command.

PROFESSIONAL KNOWLEDGE

Subordinates will not have confidence in a commander unless he is a master of his profession. He must be professionally adept (much of his time will be spent teaching and preparing subordinates for increasing responsibility) at whatever level he is commanding, and have insight into the wider nature of his profession. In addition to formal education and training, a commander's knowledge is determined by experience and by personal study of his profession. With increasing rank, much of the burden of this professional study falls on the individual officer as self-development. The lesser the degree of relevant operational experience at the level he is commanding (or about to command), the greater is the imperative to study. Specifically, study requires research, contemplation of the theory and practice of war, and an understanding of doctrine and its flexible application to meet new circumstances.

A commander must understand science and technology to a greater degree than in previous eras. He must have a genuine feel for the strengths and weaknesses of the technology his force possesses in order to optimize its contribution. Therefore, he must know the capabilities and limitations of his own weapons, communications and information systems. He should have a complementary knowledge of the enemy's technical status to assess properly the risks of his possible courses of action. A commander also requires an appreciation of logistic and personnel matters.

In the recent past, the principal threat was well-documented. Study and training were directed towards it. The location and scope of future conflicts, however, is far less certain. Warning times for future operations may prove short with only limited time for the study of the enemy and the operational environment. Commanders must therefore anticipate wisely, and study more broadly the characteristics, strengths and weaknesses of likely enemies, or, in the case of operations other than war, of belligerent parties.

VISION AND INTELLECT

A commander will not understand a complex situation in a campaign, major operation or battle, nor be able to envisage courses of action and decide what to do, without intellect. Apart from intelligence, intellect embraces discernment (including the ability to seek and identify the essentials), originality (based on imagination), judgement and initiative.

A fundamental objective of warfighting is to bring force to bear effectively in order to defeat the enemy. To accomplish this, commanders need to set the conditions they wish to establish at the end of the campaign, operation or battle; **they must work out in advance the desired end-state.**[11] No coherent plan of campaign can be written without a clear vision of how it should be concluded. The same approach applies in operations other than war. The ability to anticipate enables a commander to take steps to achieve his vision. In peacetime, this is likely to be preparing his command for a range of operational tasks. On operations, it will be achieving a mission or a campaign objective. In order to do this, a commander shapes his organization and gives it purpose by setting attainable goals. Communicating the vision throughout the span of command before a battle or campaign is as vital as the vision itself. It establishes the framework by which command at lower levels is developed, practised and sustained. How a commander communicates his vision to his force will depend upon his own style; he may address large audiences, visit his subordinates and units, issue directives or combine these methods.

Originality, one of the hallmarks of intellect, is arguably a key element of command. The ability to innovate, rather than adopt others' methods, singles out original commanders who are well-equipped for adopting a manoeuvrist approach to operations. While few successful commanders have been entirely orthodox, the more successful 'original' commanders have placed emphasis in explaining their ideas to their subordinates for mutual understanding. Major General J.F.C. Fuller wrote—

> Originality, not conventionality, is one of the main pillars of generalship. To do something that the enemy does not expect, is not prepared for, something which will surprise him and disarm him morally. To be always thinking ahead and to be peeping round corners. To spy out the soul of one's adversary, and to act in a manner which will astonish and bewilder him, this is generalship.[12]

JUDGEMENT AND DECISIVENESS

At the lower tactical levels, judgement is a matter of common sense, tempered by military experience. As responsibility increases, greater judgement is required of commanders. Increasingly, it becomes a function of knowledge and intellect. To succeed, a commander must be able to read each major development in a tactical or operational situation and interpret it correctly in the light of the intelligence available; to deduce its significance and to arrive at a timely decision. However, a commander seldom has a complete picture of the situation, because many factors affecting his course of action are not susceptible to precise calculation. Imponderables abound in warfare. A successful commander requires honed powers of decision-making. He needs a clear and discerning mind to distinguish the essentials from a mass of detail and sound judgement to identify practical solutions.

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[11] The End-State is defined in CFP 300(1) as: 'Military conditions established by the operational commander that must be attained to support strategic goals.'

[12] Major General J.F.C. Fuller, *Generalship, Its Diseases and Their Cure* [A study of The Personal Factor in Command]. Harrisburg, PA: Military Service Publishing Co., 1936, p. 32.

Decisiveness is central to the exercise of command requiring a balance between analysis and intuition. A commander must have confidence in his own judgement. He should maintain his chosen course of action until persuaded that there is a sufficiently significant change in the situation to require a new decision—at times, it will be a conscious decision not to make a decision. A commander then requires the moral courage to adopt a new course of action and then the mental flexibility to act purposefully when the opportunity of unexpected success presents itself. Conversely, a commander must avoid the stubborn pursuit of an unsuccessful course to disaster. As Clausewitz observed, *strength of character can degenerate into obstinacy ...it comes from reluctance to admit one is wrong.*[13] The borderline between resolve and obstinacy is a fine one.

In times of crisis, a commander must remain calm and continue to make decisions appropriate to his level of command. His calmness prevents panic and his resolution compels action. When under stress, the temptation to meddle in lower levels of command, at the expense of the proper level, should be resisted unless vital for the survival of that command. Improving technology, enabling all commanders to share a common view of the battlefield, will exacerbate this temptation.

The Role of Intuition. A commander will have to make a decision in the absence of desired information when, in his judgement, there is an imperative to initiate action quickly. The requirement to make intuitive decisions occurs when there is insufficient time to weigh up *analytically* all the advantages and disadvantages of various courses of action. Intuition is not wholly synonymous with instinct, as it is not solely a 'gut feeling.' Intuition is rather a *recognitive* quality, based on military judgement, which in turn rests on an informed understanding of the situation based on professional knowledge and experience. Clausewitz described intuition (in terms of the French phrase **coup d'oeil**) as *...the quick recognition of a truth that the mind would ordinarily miss or would*

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[13] Clausewitz, *On War*, p. 108.

perceive only after long study and reflection.[14] At the tactical level, intuitive decisions require a confident and sure feel for the battlefield (including an eye for ground and a close perception of the enemy's morale and likely course of action). The danger lies with commanders who lack the required 'feel' and experience for the battlefield but proceed using an intuitive process to reach a decision—even if sufficient time is available for a more analytical approach. Intuition is also valuable at the operational level. When a commander is receiving too much information and advice (suffering 'information overload'), there is a danger of 'paralysis by analysis.' In such circumstances, an intuitive decision may prove appropriate.

Initiative concerns recognizing and grasping opportunities, together with the ability to solve problems in an original manner. This requires flexibility of thought and action. For a climate of initiative to flourish, a commander must have the freedom to use his initiative and he must, in turn, encourage his own subordinates to use theirs. Although decisiveness cannot be taught, it can be developed and fostered through a combination of trust, mutual understanding and training. This process must begin in peacetime. Commanders should be encouraged to take the initiative without fearing the consequences of failure. This requires a training and operational culture which promotes an attitude of calculated **risk-taking** *in order to win* rather than to prevent defeat, which may often appear as the 'safer option.'

Acting flexibly, based on an assessment of a changed or unexpected situation, should be expected and encouraged in training, even if it means varying from original orders. The important proviso is that any action should still fall within the general thrust and spirit of the superior's intentions. A subordinate should report to his superior, and to other interested parties, such as flanking formations, any significant changes to the original plan. This promotes unity of effort and balances the requirement for local initiative with the need to keep others informed, so they can make any necessary adjustments to their own plans. Once the right conditions have been established, commanders should be capable of acting purposefully, within their delegated freedom of action, in the absence of further orders.

WILLPOWER

> *The essential thing is action. Action has three stages: the decision born of thought, the order or preparation for execution, and the execution itself. All three stages are governed by the will. The will is rooted in character,*

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[14] Clausewitz, *On War*, p. 102. Clausewitz discusses this in the general context of 'Military Genius' (Chapter 3 of Book One) and in the specific context of a commander having to make decisions in the 'realm of chance' or in 'the relentless struggle with the unforeseen.'

> *and for the man of action character is of more critical importance than intellect. Intellect without will is worthless, will without intellect is dangerous.*[15]

A commander must possess willpower, a quality that relates directly to the first Principle of War—*Selection and Maintenance of the Aim*. Willpower helps a commander to remain undaunted by setbacks, casualties and hardship; it gives him the personal drive and resolve to see the operation through to success. He must have the courage, boldness, robustness and determination to pursue that course of action that he knows to be right.

Courage is a quality required by all leaders, regardless of rank or responsibility. Physical courage is one of the greatest moral virtues and characterizes all good leaders. However, physical courage is not sufficient, the demands of warfare also call on leaders' **moral courage** to take an unpopular decision and to stick by it in the face of adversity. At the lower levels, this can be as simple as maintaining discipline in spite of severe and prolonged environmental conditions or stress. Similarly, command at higher levels requires a commander to take the longer-term operational level view in the interests of his campaign objectives, commensurate with the need to motivate and sustain his force.

The Canadian Army approach to operations requires commanders who seek the initiative and take risks. Risk-taking means making decisions where the outcome is uncertain and, in this respect, almost every military decision has an element of risk. Although the element of chance in war cannot be eliminated, foresight and careful planning will reduce the risks. The willingness to take calculated risks is an inherent aspect of willpower but must be moderated by military judgement. A good commander acts boldly, assesses the risks, grasps fleeting opportunities and, by so doing, seizes victory.

Physical and mental fitness is a prerequisite of command. Rarely can a sick, weak or exhausted leader remain alert and make sound decisions under the stressful conditions of war. This is not to say that old commanders cannot be successful (witness Moltke the Elder, aged 70, in the Franco-Prussian War), but they must remain young and active in mind. Commanders must possess sufficient mental and physical stamina to endure the strains of a protracted campaign, particularly in operations other than war. In order to keep fresh and to maintain the required high levels of physical and mental fitness, commanders at all levels have a duty to themselves and to their commands to obtain sufficient rest and to take leave.[16]

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[15] General von Seeckt, *Thoughts of a Soldier*, London: E. Benn Limited, 1930, p. 123.

Self-confidence is linked to willpower and to professional knowledge reflected by a justifiable confidence in one's own ability. A commander must maintain and project confidence in himself and his plan, even at those moments of self-doubt. There is a fine line between promoting a sense of self-confidence and appearing too opinionated or over-confident. Self-confidence should be based upon the firm rock of professional knowledge and expertise. Commanders need to have sufficient self-confidence to accept advice from the staff and subordinate commanders without fear of losing their own authority. This form of dialogue acknowledges that a commander does not have all the answers and is receptive to good ideas. It also demonstrates confidence in subordinates and engenders a wider level of commitment. Above all, it promotes trust, mutual understanding and respect. A good commander does not rely, however, on others for the creative and imaginative qualities he himself should possess; rather he has the skill to use others' ideas in pursuit of his own objectives to support his command.

The ability to communicate effectively is critical. However brilliant a commander's powers of analysis and decision-making, they are of no use if he cannot express his intentions clearly (in the Canadian context, this requirement supports the policy of a bilingual officer corps) in order that others can act. In peacetime, the temptation is to rely too much on written communication, which can be refined over time. Modern information technology facilitates this approach, but written papers, briefs and directives do not have the same initial impact as oral orders, consultations and briefings. However, written direction continues to be indispensable in the exercise of command, including administration, to ensure clarity and consistency of approach. Thus, both oral and written powers of communication are vital to any commander. On operations, a commander must be able to think on his feet, without prepared scripts or notes, and be competent enough to brief well and give succinct orders to his subordinates. A commander inspires his subordinates through the combination of clarity of thought, articulate speech and comprehension of the situation. His presentations to the media should reflect the same competencies.

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[16] Proper rest is essential. Sleep deprivation has a debilitating effect of on performance, including decision-making ability. After 18 hours of sustained operations, logical reasoning degrades by 30%; after 48 hours, it degrades by 60%. Some individuals are more susceptible to sleep deprivation than others are.

INTEGRITY

The setting of high standards of conduct, based on professional ethics and personal moral principles, is required of all commanders. Values such as moral courage, honesty and loyalty are indispensable in any organization, but especially in the military. In a close military community observance of such values, based on self-discipline, personal and professional integrity, and adherence to both military and civilian law, plays a crucial role in the maintenance of military discipline and morale. Commanders have a critical role in setting and maintaining the ethical climate of their commands, a climate that must be robust enough to withstand the pressures of both peacetime and operational soldiering. It is the responsibility and duty of all commanders to sustain institutional values in their commands.

Integrity of character is crucial for effective leadership. A commander cannot maintain the confidence of his troops—nor senior levels the confidence of the government and the Canadian people—unless he possesses the highest degree of moral credibility. Commanders at all levels must set the example with no exceptions permitted to this rule. Any ethical standard and code of discipline set by higher authority is invalid unless it is seen to apply to all ranks.

Self-control is an important component of setting the example. It not only adds dignity to command but will aid its preservation. As Robert E. Lee put it, "*I cannot trust a man to control others who cannot control himself.*"

THE ROLE OF THE COMMANDER

CREATING THE COMMAND CLIMATE

Whether in peacetime or on operations, a commander, by force of his personality, leadership, command style and general behaviour, has a considerable influence on the morale, sense of direction and performance of his staff and subordinate commanders. Thus, it is a commander's responsibility to create and sustain an effective 'climate' within his command. This climate of command should encourage subordinate commanders at all levels to think independently and to take the initiative. Subordinates will expect to know the 'reason why.' A wise commander will explain his intentions to his subordinates and so foster a common understanding, a sense of involvement in decision-making and a shared commitment.

COMMAND PRIOR TO OPERATIONS

A commander directs, trains and prepares his command, and ensures that sufficient resources are available. He should also concern himself with the professional development of individuals to fit them for positions of increased responsibility. The Canadian Army command philosophy (defined as Mission Command in Chapter 3) requires an understanding of operations two ievels of command up. It follows that the training of future commanders must reflect this requirement. In addition, a dedicated component of all leadership training should prepare individuals to assume command one level higher. The training and professional development of subordinates is a key responsibility of all commanders in peacetime and a core function which, if neglected, under-resourced, or delegated without close supervision, will undermine the operational effectiveness and combat power of the army.

A commander has a duty to employ a common doctrine in the execution of command. This ensures that the commander, his staff and his subordinates work together in an efficient manner to a common purpose. Only in this way can unity of effort be achieved and maintained. However, the employment of a common doctrine for operations must not lead to stereotypical planning for, and standard responses to, every situation. The use of a common doctrine applies to **principles**, **practices** and **procedures** that must be adapted in a flexible manner to meet changing circumstances.

The ultimate object of all training is to ensure military success. Training provides the means to practise, develop and validate—within constraints—the practical application of a common doctrine. Equally important, it provides the basis for schooling commanders and staffs in the exercise of command.

Training should be stimulating, rewarding and inspire subordinates to achieve greater heights. Good training fosters teamwork and the generation of confidence in commanders, organizations and in doctrine—a prerequisite for achieving high morale before troops are committed to operations. Training should be divided into two parallel activities: **decision-making** and **drills**. Commanders should be educated and practised in the making of appropriate and timely decisions, and with their staffs, in the development of resulting plans. The greater the proficiency in planning and decision-making, the greater the organizational agility of a force—so increasing the tempo of operations. The timely, efficient and effective execution of plans requires the flexible use of drills and procedures. Training in drills and procedures must be appropriate to the weapon system, unit or formation concerned. It includes those drills associated with the administration of the soldier and his equipment both in garrison and the field. The quicker the execution of those drills, the quicker forces can transition from one drill to another, contributing further to the development and sustainment of tempo.[17]

Formed units develop bonds between commanders and subordinates, and among subordinates, as a consequence of training. Consider a typical unit Orders Group. Explicit intent[18] is the verbal or non-verbal information publicly exchanged between a commander and his subordinates. The commander communicates his intent via the Mission Statement and Execution: Concept of Operations portions of his orders. However, his explicit intent also includes non-verbal cues, such as gestures, tone of voice, and facial expressions.

Each member of the Orders Group possesses implicit or personal intent derived from previous experience, individual personality, personal values, military ethos, cultural biases and national pride. Each individual's interpretation of the commander's explicit intent is dependent upon their individual implicit intent. In well-trained, cohesive units, there is a high degree of **shared** implicit intent, because of common experiences, values and training. This shared implicit intent, i.e., a collective experience base, permits a reduction in the amount of explicit intent required.

The Orders Group of a highly cohesive unit is characterized by subordinates who perfectly understand their commander's intent. The commander must cultivate an increasingly detailed body of shared implicit intent within his command in order to accelerate the passage of information. As this body of shared implicit intent expands, mutual understanding and trust increase. The best examples of this type of relationship are within formed units, battle groups, and formations that have benefited from long periods of affiliation. Ad hoc units are considerably less likely to attain a similar degree of mutual understanding. The commander of an ad hoc unit must expend much more effort ensuring that his subordinates fully understand his intention and direction, and to feel reassured that the task will be completed properly. Ad hoc units therefore, cause a significant escalation in risk that must be appreciated by higher commanders.

Within its wider context, professional development also includes evoking an interest in the conduct of war through the critical study of past campaigns and battles in order to learn relevant lessons for the future. In this respect, commanders should emphasize educating subordinates through battlefield tours, tactical exercises without troops (TEWTs) and study days to stimulate professional interest, evoke an understanding for the realities of war and widen military perspectives in peacetime. Often the basis of such studies is historical research.

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[17] For an excellent guide to unit level training with practical advice for leaders at all levels, see CFP 318(15) *Leadership in Land Combat Military Training.*

[18] This articulation was developed by C. McCann & R. Pigeau from the Defence and Civil Institute of Environmental Medicine and published as *Taking Command of* C^2 in Proceedings of the International Command and Control Research and Technology Symposium in the United Kingdom, 23-25 September 1996.

Finally, prior to operations, the commander must focus attention on identifying the resources required for operations, managing their condition and ensuring that they are available. Whether these resources are material stocks, equipment or manpower, their readiness requires confirmation. A high state of preparedness is achieved by promoting good personnel and equipment administration measures.

THE OPERATIONAL LEVEL OF COMMAND

Commanders at this level are concerned with the planning and execution of campaigns and major joint and combined operations to meet strategic objectives. A commander's competence will depend largely on his understanding and application of Operational Art.[19] This, in turn, rests on the ability to understand the environment in which operations are to take place, and understanding of the opponent's capabilities and critical vulnerabilities. It also demands skill in the management of resources and the application of technology. Proficiency in command at the operational level requires the ability to integrate the operations of different environments (and often allied forces) towards the achievement of campaign objectives. It further requires the ability to deal with political, legal, financial and media pressures. Thus the operational commander needs to have a wide perspective of the application of military force and to understand its strategic context and the risks involved in its use. Ultimately, achieving success will depend upon his professional experience and judgement, and his ability to take the appropriate decisions in the full knowledge that **the cost of failure could be catastrophic for his command, and ultimately, for Canada**.

THE TACTICAL LEVEL OF COMMAND

When military force must be applied, the achievement of strategic and operational goals largely depends on tactical success. While luck may have some part to play, a commander's tactical success is normally based on more certain military requirements such as good leadership, the ability to motivate his command and professional competence at all levels. Tactical command demands a sound knowledge and understanding of tactical doctrine, the ability of a commander to translate his superior's intent into effective action at his level and expertise in the techniques required to succeed in battle. In short, the tactical commander's focus must lie on the skilful defeat of the enemy by timely decision-making, superior use of arms and competence in synchronizing combat power on the battlefield.

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[19] Defined in CFP(J)5(4) as 'the skill of employing military forces to attain strategic objectives in a theatre of war or theatre of operations through the design, organization, integration and conduct of campaigns and major operations.'

COMMAND IN OPERATIONS OTHER THAN WAR

In operations other than war, the distinction between the Operational and the tactical levels of command are far less clear-cut (Canadian experiences in the 1990s can certainly confirm this with the missions to Somalia, Rwanda and former Yugoslavia). Unit or formation commanders accustomed to training and operating at the tactical level may be confronted with legal, political and media pressures normally associated with the operational level.

ASSESSMENT OF SUBORDINATES

A higher commander must know the personalities and characteristics of his subordinate commanders. Some need a tighter rein: others work best under minimal control. Some will be content with a general directive; others, less comfortable with Mission Command, will prefer more detail. Some will tire easily and require encouragement and moral support; others, perhaps uninspiring in peace, will find themselves and flourish on operations. Matching talent to tasks is thus an important function of command. The higher commander must continue, therefore, to judge subordinates and staff in peace and on operations, in order that the right appointments can be made in the right place at the right time. Particular care must be exercised when considering a staff officer for a command appointment. Does he have the requisite command experience both in positions of leadership and training of others? An appointment to command should not be regarded as a reward for good staffwork: while that individual might survive in peacetime, on operations success will be more difficult. The recognition of subordinates' strengths and limits is vital to the effective exercise of command.

Inevitably, some commanders (and members of the staff) will have to be removed from their appointment, in their own interest and those of their commands. The chain of command must assist in this necessary process, however unpleasant for those involved. As Field Marshal Slim advised, an army commander should remove a divisional commander (in other words, removal should be done two levels down). Timely consideration must be given to the future of the removed officer. There is often scope for a second chance after a valuable lesson learned.

Successful commanders who have unexpectedly failed may be simply worn out; after rest and recuperation they can be returned to operations and prove themselves again. It is a matter for the higher commander to decide if they should be returned to their previous command.

One of the most important duties of a commander is to report on his subordinates and to identify future candidates for senior appointments in command and on the staff. To allow the objective assessment of the command qualities of subordinates, individuals should be placed in circumstances where they must make decisions and live with the consequences. They must be challenged to provide some indication of their potential to perform at the next rank level. They must also know that their superiors have sufficient confidence in them to permit honest mistakes. Training should give an opportunity to make judgements on individual qualities. In particular, any assessment of subordinates should confirm whether they exhibit the necessary balance of **professionalism**, **intelligence** and **practicality** required to carry the added breadth and weight of responsibilities that go with promotion.

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CHAPTER 3 - THE DOCTRINAL COMPONENT OF COMMAND

The second Component of Command is the conceptual or doctrinal. Chapter 3 will highlight the core aspects of the army's doctrine by outlining the Canadian approach to operations, in order to establish why we have adopted our current warfighting doctrinal basis and Command Philosophy. The fundamental aspects of this Command Philosophy—Mission Command—will then be described in some detail.

> *Theory exists so that one does not have to start afresh every time sorting out the raw material and ploughing through it, but will find it ready to hand and in good order. It is meant to educate the mind of the future commander, or, more accurately, to guide him in his self-education; not accompany him to the battlefield.*[20]

APPROACH TO FIGHTING

There are two approaches to warfighting. The first concentrates your strength against the enemy's strength: the second attempts to concentrate your strength against the enemy's vulnerability. These approaches have commonly been named Attrition and Manoeuvre Warfare respectively.

Attrition Warfare has been practised for centuries, reaching its zenith during the Industrial Revolution when massed armies became logistically supportable. This approach to fighting tends to be characterized by a focus on ground rather than the enemy, and a centralized style of higher command exhibiting detailed and tight control.

Similarly, Manoeuvre Warfare is not a recent development. Sun Tzu documented his thoughts on this approach to fighting some 2600 years ago. Basil Liddell Hart began describing his *Indirect Approach*[21] after seeing the horrors of World War I. However, it was the German Blitzkrieg of early World War II that clearly demonstrated the potential and synergy of Manoeuvre Warfare in a modern context.

The Canadian Army has adopted Manoeuvre Warfare as its doctrinal approach to warfighting. Manoeuvre Warfare has the following objective: *To*

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[20] Clausewitz, *On War*, p. 141.

[21] B.H. Liddell Hart, *Strategy*, London: Faber & Faber Ltd, 1954.

defeat the enemy by shattering his moral and physical cohesion, his ability to fight as an effective coordinated whole, rather than by destroying him physically through incremental attrition.[22] The focus of Manoeuvre Warfare is on the enemy and not the ground. To achieve the utmost from Manoeuvre Warfare, however, demands more than just focusing on the enemy; it requires a particular style of command. This style or philosophy of command fosters the use of **initiative** at all levels. Reaction to the unexpected, advantage taken of opportunity, not waiting for decisions—these are only possible through decentralized decision-making at all levels. The junior leadership in the Canadian Army is very competent and needs to be told **what to achieve and why,** rather than **what to do and how**. The philosophy of command that decentralizes decisions and fosters initiative is commonly named **Mission Command**[23]—a philosophy of command that this publication will espouse.

MANOEUVRE WARFARE

Our doctrine is based on the Canadian Principles of War and the concept of Manoeuvre Warfare described in CFP 300(1) *Conduct of Land Operations* and developed in CFP 300(2) *Land Force Tactical Doctrine*. This approach to fighting seeks to attack the enemy's cohesion, usually, but not necessarily avoiding trials of strength, but preferably striking points of weakness. It plays as much upon the enemy's will to fight as upon his material ability to do so. It requires a flexible and positive attitude of mind by commanders, who must seek opportunities to exploit enemy vulnerabilities while maximizing their own strengths. The focus is the enemy's Centre of Gravity, *the source of his freedom of action, physical strength or will to fight*, and how best to attack, neutralize or destroy it.

The following characteristics further clarify Manoeuvre Warfare:

- It aims to defeat the enemy by destroying his will and desire to continue by seizing the initiative and applying constant and unacceptable pressure at the times and places least expected.
- The emphasis is on the defeat and disruption of the enemy rather than attempting to hold or take ground for its own sake.
- Generally, it aims to apply strength against vulnerability, in contrast to attrition warfare where strength tends to be applied against strength.

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[22] CFP 300(1) *Conduct of Land Operations*, p. 2-3.

[23] The British Army in ADP 2 *Command* uses 'Mission Command.' The US Army refers to 'Mission Focused Command' while the German Army calls this philosophy "Mission Orders Tactics" – 'Auftragstaktik.'

- It is normally joint, combining the resources of all arms and services. Air, both fixed wing and rotary, is of crucial importance and the space dimension is becoming ever more important.
- It will invariably include elements of movement, application of firepower and positional defence. There will usually be a requirement to fix the enemy, to deny him access to routes and objectives, and to secure vital ground and key points. The manoeuvrist should not be afraid to take up a defensive posture provided that it is never seen as an end in itself, but for example, as a preliminary to resuming the offensive or to regain balance.

To attack enemy cohesion, our doctrine stresses a number of means of integrating the combat functions to increase our combat power. These are **synchronization**, **tempo** and **main effort**.[24] To attack the enemy's cohesion requires a distinctive style of command. Success is largely determined by the commander's ability to make timely and informed decisions based on feedback from his control systems, and his position in relation to events. Success is also dependent upon the responsiveness of his command, which is a product of equipment, organization and training. Further, the effectiveness of our adversary's command system can be degraded, relative to our own, with the astute application of Command and Control Warfare. Figure 3.1 provides a brief description of this important application of Manoeuvre Warfare.

Manoeuvre Warfare is applicable across the spectrum of conflict. This approach is just as appropriate to the special conditions of operations other than war, even if the pace of such operations will normally be slower. However, there are likely to be more limitations on a commander's freedom of action in such operations.

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[24] Synchronization is the arrangement of military actions in time, space and purpose to produce maximum combat power at a decisive place and time. Tempo is the rhythm or rate of activity on operations, relative to the enemy and has three elements—speed of decision, speed of execution and the speed of transition from one activity to another. Main Effort is the concentration of forces or means in a particular area where a commander seeks to bring about a decision. See CFP 300(1) Chapter 2, pages 2-9 and 2-10 for a full discussion of synchronization, tempo and main effort.

MISSION COMMAND

Mission Command, the army's philosophy of command within the Manoeuvre Warfare approach to fighting, has three enduring tenets: the importance of understanding a superior commander's intent, a clear responsibility to fulfil that intent, and timely decision-making. The underlying requirement is the fundamental responsibility to act within the framework of the commander's intentions. Together, this requires a style of command that promotes decentralized decision-making, freedom and speed of action, and initiative. Mission Command meets this requirement and is thus key to the army's doctrine. Under the Mission Command philosophy, commanders must:

- Give orders in a manner that ensures that subordinates understand intent, their own tasks and the context of those tasks.
- Tell subordinates **what effect** they are to achieve and **the reason why** it needs achieving.
- Allocate appropriate resources to carry out missions and tasks.
- Use a minimum of control measures not to limit unnecessarily the freedom of action of his subordinates.
- Allow subordinates to decide within their delegated freedom of action how best to achieve their missions and tasks.

FUNDAMENTALS

Unity of Effort
Decentralize Authority
Trust
Mutual Understanding
Timely and Effective Decision-Making

The successful employment of Mission Command on operations rests on its fundamentals being fully understood, fostered and frequently practised in training. Its application, however, cannot be stereotyped. A commander's style of command must also reflect the situation, including the capability and understanding of his subordinate commanders. Mission Command provides a common base-line: it applies not only to operations but also to much of the army's affairs in peacetime. Mission Command is enhanced by a strong Regimental System where cohesion, trust and mutual understanding are products of personal relationships that develop with service together.[25] Mission Command must also remain a dynamic component of doctrine and not become dogma. As new technology becomes available and is integrated into the army, the following fundamentals and their application should be re-addressed as necessary.

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[25] Messes and other institutes such as Regimental Associations are also important to the fostering of these relationships. For an excellent discussion on the Regimental System see: Major-General D. Loomis, *The Somalia Affair*, Ottawa: DGL Publications, 1996, Chapter 3.

MISSION COMMAND TERMINOLOGY

Unity of effort and common understanding throughout an entire military force are critical to Mission Command. Many factors such as national moral support, the state of training and appropriate equipment contribute to this 'team' effectiveness. The force will not be successful, however, if the chain of command is incapable of efficiently ordering soldiers to accomplish tasks that contribute to the overall goal. The framework providing unity of effort and common understanding from the operational commander to the individual soldier hinges upon the consistent application of the following terms.

Commander's Intent. The commander's intent is a commander's personal expression of **why** an operation is being conducted and **what** he hopes to achieve. It is a clear and concise statement of the desired end-state (with respect to the relationship of the force to the enemy and to the terrain) and acceptable risk. The overall purpose of the operation is not mandatory in the commander's intent because purpose is included in the mission statement. The commander words the intent himself and expresses it in the first person i.e. "My intent is …" It will be the first part of paragraph 3.a. (Execution: Concept of Operations) of the Operation Order or Instruction. The commander's intent provides the unifying focus for all subordinate elements and must be understood two levels below the issuing commander. It provides an overall framework within which subordinate commanders may operate when a plan or concept of operations no longer applies, or circumstances require subordinates to make decisions that support the ultimate goal of the force.

Concept of Operations. The concept of operations comprises the remainder of the Execution paragraph 3.a. of the Operation Order or Instruction. Similar to the Commander's Intent, it is also normally written and/or presented by the commander personally. The concept of operations describes how the commander visualizes the battle unfolding—in other words, how to achieve the end-state or outcome. The concept is based on the commander's selected course of action to accomplish his mission or task(s); expressing the **what**, **where**, **when** and **how** the force will achieve its purpose in relation to the enemy. The Main Effort must be stated.

Mission Statement. The mission *is a clear, concise statement of the task of the command and its purpose*. It utilizes commonly understood verbs such as 'attack' vice 'clear an objective' and is not sub-paragraphed. Individual subordinates do not receive separate mission statements **unless** the commander is assigning a task(s) with a purpose quite separate from the main force. For example, a unit tasked with humanitarian assistance to refugees while the brigade conducts an advance to contact. In this situation, the commander has the flexibility to assign a separate mission statement to the unit concerned.

Task. A task *is an activity which contributes to the achievement of a mission*. A commander will therefore assign tasks to subordinates based upon the analysis conducted during his estimate of the situation in order to achieve his own mission. Specifically, he must determine **what must be done** to achieve the desired end-state; **who is best suited** to achieve each of these tasks; and **what resources they require** to accomplish each task. He does not tell his subordinates how to accomplish their task.

Figure 3.2 – Mission Command Terminology

UNITY OF EFFORT

Mission Command is a style of command that decentralizes or devolves decision-making while Manoeuvre Warfare is successful only through unity of effort. The commander surmounts this potential dichotomy by imparting a clear sense of purpose using the common terminology specified at Figure 3.2. Each subordinate commander must also be consistent in the use of these terms.

Subordinates who understand the intent of their immediate superiors and those two levels up further enhance unity of effort. This achieves consistency of aim at three levels of command and promotes mutual understanding. It also allows subordinates to be aware of the 'big picture' and makes it far more likely that they will continue to act purposefully in an unexpected situation.

DECENTRALIZING AUTHORITY

There is nothing new in decentralizing decision-making authority; it has marked the practice of many successful commanders in history. Montgomery wrote, for example, in the context of higher command: [The Commander-in-Chief] *must decentralize ... he must trust his subordinates, and his staff, and must leave them alone to get on with their own jobs.*[26] This fundamental of decentralization applies not only in a headquarters or higher command. It must apply to all levels. As Field Marshall Slim noted of the 14th Army—

> Commanders at all levels had to act more on their own; they were given greater latitude to work out their own plans to achieve what they knew was the Army Commander's intention. In time they developed to a marked degree a flexibility of mind and a firmness of decision that enabled them to act swiftly to take advantage of sudden information or changing circumstances without reference to their superiors. ...This requires in the higher command a corresponding flexibility of mind, confidence in subordinates, and the power to make its intentions clear through the force.[27]

Decentralizing decision-making includes these considerations:

- Decision thresholds should be set as low as possible. This sets the conditions for making appropriate decisions swiftly in the confusion and uncertainty of battle. It also reduces the need for passing all but essential information up and down the chain of command. The more fluid the circumstances, the lower the decision threshold should be set.

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[26] *High Command in War*, 21st Army Group publication, June 1945, p. 23.

[27] FM Sir William Slim, *Defeat Into Victory*, London: Cassell, 1956, pp. 541-542.

- Devolution of decision-making requires delegation of specific authorities. It underlies much of the practical application of command, from granting financial authority to designated budget holders in peacetime, to creating the conditions for freedom of action by subordinate commanders on the battlefield at the tactical level. Assessing what authority to delegate is therefore an essential part of a commander's planning and decision-making.
- While delegation of authority characterizes decentralized command, it does not necessarily imply any slackening in the requirement to control. Control in the form of reporting performance and progress to a higher commander remains an important component of any command organization. Quality decision-making depends on this form of feedback from a subordinate.
- Commanders must possess sufficient judgement to know not only what to delegate but also to whom. Prior knowledge of a subordinate's strengths and weaknesses will assist in that judgement. Thus, when some subordinates are offered more freedom than others, it does not imply inconsistency of command.
- A commander who delegates authority for action to a subordinate is required to furnish that subordinate with sufficient resources. However, such a tidy relationship between authority and resources is unlikely to survive in the uncertain conditions of operations. While authority can be delegated relatively easily, the allocation of adequate resources is much more dependent on military judgement and can never allow fully for the actions of the enemy.
- Commanders have staffs and advisers to plan and execute the sustainment combat function on their behalf. However, the commander has an essential role to play in the formulation of sustainment concepts and plans. Commanders must recognize the need for administrative planners to anticipate future requirements and involve them from the start of any planning process. Support service staff and units also require his intent, concept of operations, Main Effort and sustainment priorities.[28]

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[28] See CFP 311(1) *Land Force Sustainment Doctrine* for details.

TRUST

Trust is one of the corner-stones of leadership and command; like respect, it must be earned. There are few short-cuts to gaining the trust of others, but it is based on a number of qualities including professional competence, personal example and integrity.[29] Trust, often so slowly gained, can be lost quickly, particularly under the extreme condition of war. Soldiers must not only feel that they can trust their immediate superiors, but must also have confidence in the ability of commanders higher up the chain of command, right to the top. For Mission Command to function effectively, a superior needs to have earned not only the trust of his subordinates, but also to place his trust in them. Thus, trust must be seen to function both ways. The basis of this two-way trust is shared implicit intent, which enhances mutual understanding. Once established, and if sustained, trust brings its own rewards for commanders and subordinates alike.

MUTUAL UNDERSTANDING

Like trust, mutual understanding requires time to become established. It is important that:

- Commanders understand the issues and concerns facing their subordinates. Professional knowledge and study will give subordinates, in turn, an insight into command at levels higher than their own. Only then can they conduct operations together in a cohesive and effective manner.
- There is a shared perception of military problems. Here a common doctrine and philosophy of command bonds commanders and subordinates together by providing a unifying framework of understanding. This does not imply any requirement to come to identical solutions, as Mission Command stresses that the effect achieved is more important than how achieved.
- A professional understanding of doctrine, drills and procedures, including the **language of command**, is held in common. Commander's intentions must be quite clear to subordinates if they are to understand what they are to achieve. On operations, there will seldom be time for questions or debate over the meanings of tactical terms or command expressions. Canadian soldiers speak in both official languages, therefore mutual understanding demands, quite simply, that all leaders of commissioned rank speak both.

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[29] For a description of the army's ethos, see CFP 300 *Canada's Army* Chapter 2.

TIMELY AND EFFECTIVE DECISION-MAKING

Battles may be lost, or victory delayed, because of a commander's failure to recognize favourable circumstances and make sound and timely decisions. In order for Mission Command to be an effective command philosophy, within a manoeuvrist approach to operations, commanders and their support systems must be capable of operating efficiently in an environment of great uncertainty.

Figure 3.3 depicts the Decision-Action cycle, which is the process that an individual goes through in order to take action from a set of circumstances. This will be developed in Chapter 6 – *Battle Procedure*. A commander must strive to complete his Decision-Action cycle faster than his opponent. By *turning* inside his opponent's cycle, he will render his opponent's actions inappropriate. In order to accomplish this, a commander must recognize when (and when not) to make decisions; when it will be appropriate to wait for further information; and when an immediate decision is required based on available, albeit limited, information.

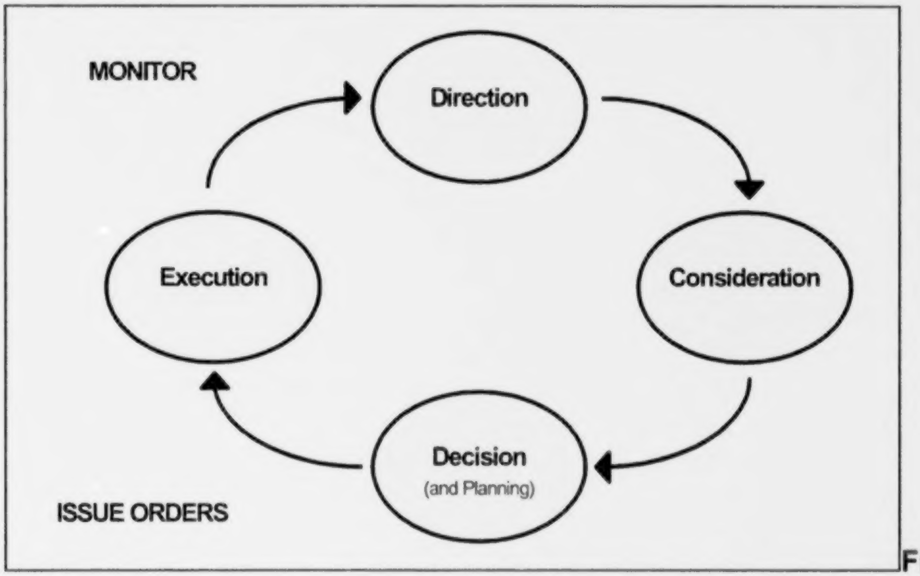

Figure 3.3 – The Decision-Action Cycle

The ability to make difficult decisions marks a strong commander. Major General J.F.C. Fuller emphasized in all his teaching that decision-making on key issues is the province of the commander, while routine decision-making should be delegated to the staff. Those who are unsure of themselves may seek to have the decision referred up the chain of command, or may turn to their advisers for help. As Fuller observed—

> How many generals say to their staffs: 'Give me all the facts and information and then leave me alone for half an hour, and I will give you my decision.' In place they seek a decision from their staffs, and frequently the older they are the more they seek it, because they so often feel that the latest arrival from the Staff College must know more than they do—sometimes they are not wrong.[30]

Individual differences and environmental factors affect the quality of a commander's decision-making and planning. Individual differences include personality, intelligence, experience and perceptive style (including intuition). Environmental factors include the conflict setting, workload and stress level, and the method of processing and presenting information by the staff.

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[30] Fuller, *Generalship: Its Diseases and Their Cure*, pp. 65-66. This is not to say that senior members of the staff or principal subordinates should not participate in key decision-making. A wise commander will heed sound advice, but the final responsibility is his alone.

The need for timely, accurate and relevant information will demand information flows that do not necessarily follow the chain of command. A number of levels of command may require vital information simultaneously, rather than sequentially. NBC strike warnings and meteorological forecasts are examples of information in this category.

A commander requires many types of information and in particular, intelligence[31] in order to assess the situation, to make the appropriate decisions and to plan. Therefore directing the intelligence process is an important command function. The sequence of activities whereby information is assembled, converted into intelligence and made available to the commander and his staff is known as the **Intelligence Cycle**. The cycle consists of four stages: Direction, Collection, Processing and Dissemination. In the Direction stage, a commander must focus his staff's attention on his Commander's Information Requirements (CIR—Summary at page 41) otherwise; irrelevant details will overwhelm critical essentials. In the Collection and Processing stages, care must be taken that the quest for information does not become too time-consuming for subordinates resulting in the stifling of initiative. Similar to Commander's Information Requirements, a commander must identify his Priority Intelligence Requirements (PIR—see page 42).

A commander is dependent on communications in order to gain, process and pass information, including the dissemination of intelligence. Communications involve a wide spectrum of means: from the traditional passage of written documents by courier, through telecommunications including telephone, combat net radio and satellite voice links, to the automatic electronic exchange of data on wide area networks. The effectiveness of a particular system (or combination of systems) will depend upon the theatre of operations involved, the transmission means available and the local tactical situation. Careful planning and management of communications assets will increase the ability of commanders and staffs to pass critical information and make decisions at the right time, thus helping to maintain the tempo of operations.

SUMMARY

The Canadian Army's doctrinal approach to operations is Manoeuvre Warfare. This approach is augmented by the Mission Command philosophy of command. These concepts are characterized by a focus on the enemy not the ground, the use of strength against vulnerability, decentralization, the rapid flow of information through the Decision-Action cycle, and coordinated effort based upon mutual understanding and trust. This doctrine is enabled by the Theory of Command Organization, which is the subject of Chapter 4.

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[31] Principles for intelligence management are detailed in CFP 315(2) *Combat Intelligence*.

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CHAPTER 3 – ANNEX A

COMMANDER'S INFORMATION REQUIREMENTS

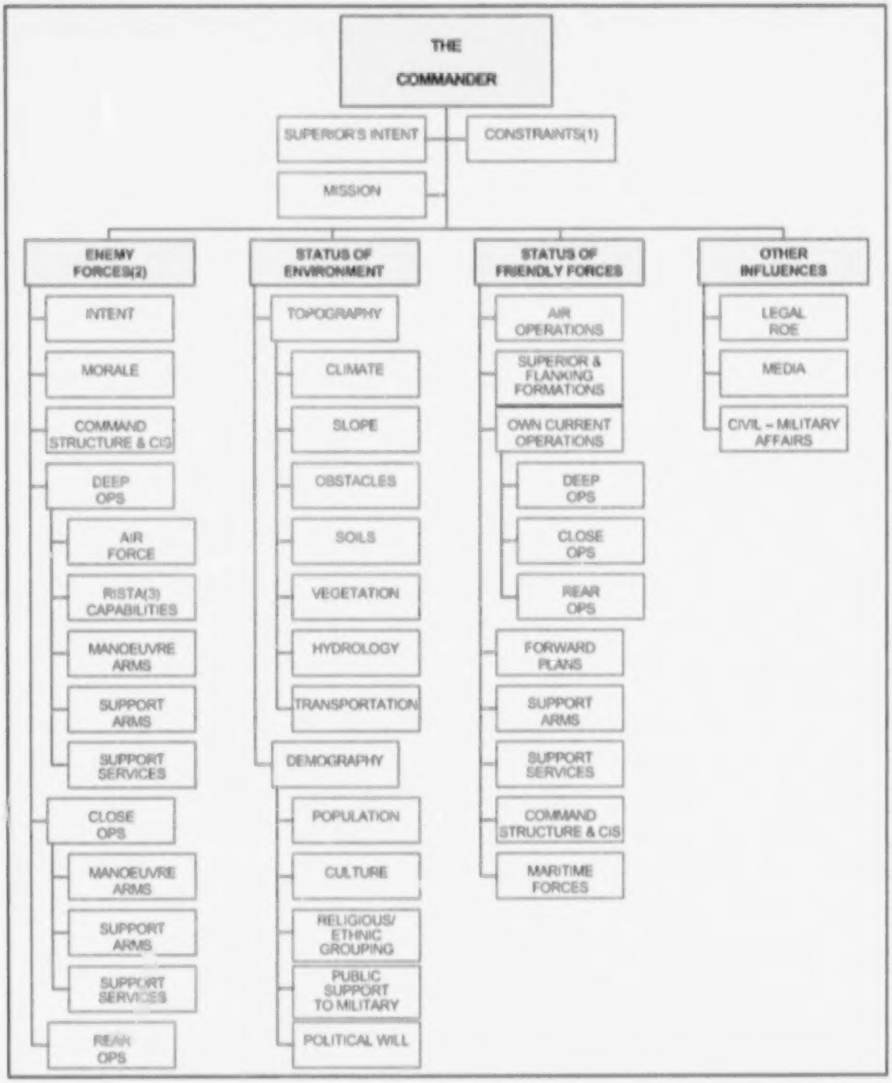
THE COMMANDER
SUPERIOR'S INTENT
CONSTRAINTS(1)
MISSION
ENEMY FORCES(2)
INTENT
MORALE
COMMAND STRUCTURE & CIS
DEEP OPS
AIR FORCE
RISTA(3) CAPABILITIES
MANOEUVRE ARMS
SUPPORT ARMS
SUPPORT SERVICES
CLOSE OPS
MANOEUVRE ARMS
SUPPORT ARMS
SUPPORT SERVICES
REAR OPS
STATUS OF ENVIRONMENT
TOPOGRAPHY
CLIMATE
SLOPE
OBSTACLES
SOILS
VEGETATION
HYDROLOGY
TRANSPORTATION
DEMOGRAPHY
POPULATION
CULTURE
RELIGIOUS/ ETHNIC GROUPING
PUBLIC SUPPORT TO MILITARY
POLITICAL WILL
STATUS OF FRIENDLY FORCES
AIR OPERATIONS
SUPERIOR & FLANKING FORMATIONS
OWN CURRENT OPERATIONS
DEEP OPS
CLOSE OPS
REAR OPS
FORWARD PLANS
SUPPORT ARMS
SUPPORT SERVICES
COMMAND STRUCTURE & CIS
MARITIME FORCES
OTHER INFLUENCES
LEGAL ROE
MEDIA
CIVIL – MILITARY AFFAIRS

Figure 3A.1 – Commander's Information Requirements

Notes:

(1) Constraints may include Resources, Rules of Engagement, and Time and Space.

(2) In operations other than war, the information requirements here are of the Belligerent Parties involved.

(3) Reconnaissance, Intelligence, Surveillance and Target Acquisition.

OTHER INFORMATION REQUIREMENTS

Commander's Critical Information Requirements (CCIR). The commander will select his CCIR from the summary of Commander's Information Requirements at Figure 3A.1. The selection will be based upon the mission, his experience and the higher commander's intent. Selection occurs during the Direction step of Battle Procedure in order to focus attention and prevent irrelevant details from concealing the critical essentials. CCIR include three components:

- **Priority Intelligence Requirements (PIR)**. Determination of PIR answers the question, *How do I see the enemy*? The staff may recommend PIR to the commander. PIR concern what the commander needs to know about the enemy and environment columns of Figure 3A.1 in order to reach a decision affecting the conduct of operations. As such, PIR are tied to the Commander's Decision Point.
- **Friendly Forces Information Requirements (FFIR)**. Determination of FFIR answers the question, *How do I see myself*? These help determine the combat capabilities of own or adjacent friendly forces.
- **Essential Elements of Friendly Information (EEFI)**. Determination of EEFI will best determine, *How can I prevent the enemy from seeing me*? This information will help determine protection of the force from the enemy's information gathering, or other information requirements concerning neutral or third parties.

CHAPTER 4 - THE THEORY OF COMMAND ORGANIZATION

This Chapter proceeds from the Components of Command described in Chapters 2 and 3. It encompasses the theoretical aspects of organizing for command, while Chapter 5 will describe the application of this theory.

FUNDAMENTALS OF ORGANIZATION

GENERAL

The design of an efficient command organization able to achieve its objectives effectively requires an understanding of what an organization is and how it functions. At its simplest, an organization is *two or more people working together in a coordinated manner so as to achieve group results*. An organization should have a clear role. In addition, all organizations have a human aspect; they therefore require some degree of discipline within a defined structure.

There are five organizing fundamentals which apply to command:

- **Unity of Command**. A commander should be accountable to only one superior. This ensures clarity and unity of effort, promotes timely and effective decision-making, and avoids conflict in orders and instructions. Unity of command is effected through a clear chain of command, whereby command at each level is focused on one commander. This fundamental applies at all levels and in joint operations. In combined operations and operations other than war, however, absolute unity of command may not be achievable.
- **Cooperation**. A Principle of War, cooperation complements unity of command. It entails the coordination of individual and group activities to achieve an optimum combined effect for the common good. The basis of cooperation is teamwork, trust and mutual understanding, based upon a common understanding of the commander's intent and developed through training. Three further elements contribute to cooperation: a common aim (reflecting unity of effort), mutual goodwill, and a clear division of responsibilities. Mutually agreed doctrine and clearly defined command relationships formalize military cooperation.
- **Balanced Structure**. There is a limit to the number of subordinates a superior can command effectively. The optimum number will depend

primarily on the complexity and tasks of the particular organization. A balanced and capable overall structure is achieved by adjustment of the **span of command**—the 'width' of an organization or number of direct subordinates of a commander.

- **Responsive Procedures**. Procedures must be simple, efficient and flexible in order to be responsive, and so assist the development and maintenance of tempo within a command. Standard Operating Procedures save time and effort. Chapter 5 considers the procedures for the operations of headquarters, while Chapter 6 details standard decision-making techniques.
- **Dynamic Organization**. The organization for command must be dynamic. Changed situations and new technology will demand adjustment of structures, doctrine and procedures. For example, the structure of a force and its headquarters deployed on peace support operations may differ considerably from that for regional conflict or general war. Therefore, a responsive and continuous monitoring and review mechanism is required in the organization for command. However, avoid 'change for change's sake.'

THE CHAIN OF COMMAND

The basis of the command framework, in peace, conflict and war, is the chain of command—the structure by which command is exercised through a series of superior and subordinate commanders. For a chain of command to be effective, it must be flexible but accurately depict the path of decision-making and authority within a military force. Two contributing factors: one human and the second, technology driven, enhance a chain of command's effectiveness. First, complementary resources and activities, such as messes, institutes, regimental associations and sporting activities instil mutual understanding, ethics and a deeper sense of appreciation of team members. Secondly, each link in the chain must be connected via communication and information systems and by standard operating procedures. Where these systems and procedures are not guaranteed or standardized, liaison is essential. The most important prerequisite of the chain of command is that each commander knows *where* he fits into the chain, from *whom* he receives his orders and *whom* he commands.

Normally, observance of a clear chain of command will be the most efficient case. The movement of information, however, must not be constrained exclusively along hierarchical lines. There will be times when the imperative of timely decision-making is best met by information reaching different levels of command *simultaneously* rather than sequentially. This will become more the norm as technology improves.

If communications are lost between a superior and a subordinate command, the onus is on the superior to re-establish communications with the subordinate. However, common sense dictates that both levels do their best to communicate with one another again while the subordinate continues to act purposefully in accordance with his superior's intent. In this way, Mission Command overcomes the potentially destabilizing consequences of a disruption to information flow.

In addition to the formal chain of command, there is an element of technical control in the army, which reflects *functional* areas of interest. This exists at almost every level. For example, the officer commanding the brigade Headquarters and Signal Squadron, while under the command of his brigade commander, may receive technical direction (frequency allocation and crypto-graphic instructions) from the Commander Divisional Signals. Within their functional areas, support service commanders may exercise technical control over subordinates as the senior functional officer. This control is exercised on behalf of the overall commander, however, to support his intent. Technical control must not be allowed, under any circumstances, to eclipse the primacy of the combined arms commander; it must be restricted to specific and delegated areas of interest. If not restricted, there is a danger that trust in command will be broken and the morale and efficiency of formations or units will suffer accordingly.

COMMAND RELATIONSHIPS

An important factor for a stable chain of command is establishing the command relationships of subordinate formations and units. In particular, establishing clear command and administrative relationships is a fundamental requirement in all operations, and especially so in those of a joint and combined nature. In establishing command relationships, a commander delegates authority to subordinates commensurate with their responsibilities. A commander can determine whether and how he can employ subordinate formations or units by using the following queries:

- Can he employ the unit for any purpose (can he give them a mission)?
- If the mission (the purpose of their employment) is not within his purview, can he give them tasks within the given mission?
- Can he break up the formation or unit or must it retain its integrity?
- Are there any restrictions on their use (for example, for hostilities only or for a specified duration or place)?

A summary of the application of command relationships is at page 57. As joint and combined operations will be the norm, it is crucial for mutual understanding to practise this terminology in day-to-day army operations. Exercise caution in the selection of these states as they may be interpreted differently by other environments and allies. The criteria listed in the preceding paragraph will assist, but in case of doubt, it may prove prudent to consult the superior commander as to any restrictions he envisages on the employment of subordinate formations and units. Administrative relationships, artillery and air defence tasks and responsibilities are outlined at pages 60, 63 and 65 respectively.

Application to Mission Command. Once defined, the chain of command and the command relationships within it should be adhered to until formally changed. Commanders must respect the unity of command and be aware of the possibly damaging consequences of ignoring an established structure. However, it is important not to interpret the command relationship and the chain of command too narrowly when special circumstances apply. On operations, a commander on the spot may have to use his initiative and break both the chain of command and the command relationship to ensure timely and effective action in accordance with his superior's intent.

SPAN OF COMMAND

The span of command is the number of subordinate organizations given to one commander to command directly (see Figure 4.1). The overall size and spatial deployment of the forces that a commander has to direct determine the optimal span. It takes into account who must be directed but not how. Narrowing spans of command may well add levels of command with potentially undesirable effects. The use of technology, particularly modern communications and information management techniques, may make it possible to widen spans of command. However, as command is essentially a human function, purely technological considerations should not be the only criteria in determining the span.

Studies have shown that a ratio of four or five active **points of command** to one headquarters is the maximum that a commander can control effectively. This limit applies regardless of the technical ability to communicate with every formation or unit within a span of command. Further, the more active the points of command are, the less that can be handled simultaneously. The commander risks overload, with a debilitating effect on decision-making, if more than three are active at any one time. In order to reduce his points of command, a commander may well have to delegate authority either within the battlefield framework (described below), or by function.

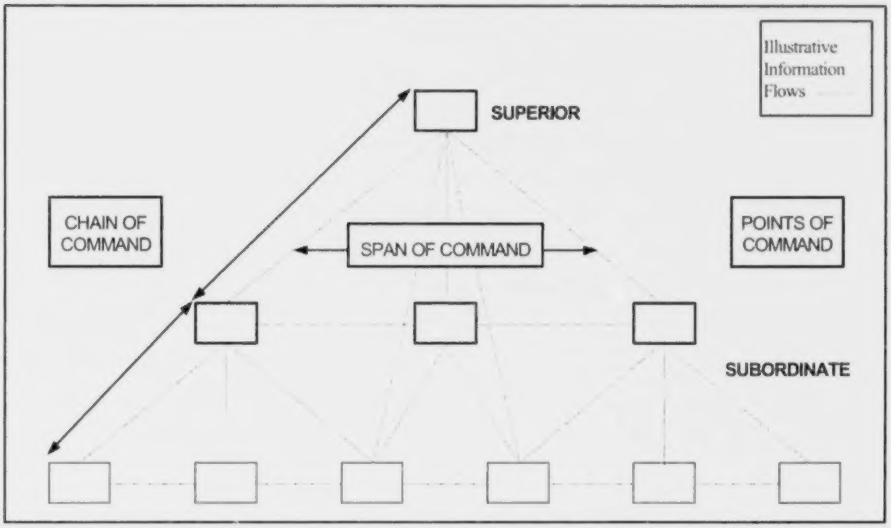

Figure 4.1 – Chain and Span of Command, and Information Flows

STRUCTURE

In principle, forces should be structured with the capability for independent action. The cohesion, and thus effectiveness, of a command rests upon integrating its component parts to optimize its overall capability. In practice, forces are organized to contain, or draw on, the elements necessary to fulfil the **Combat Functions**.[32] For example, a balanced force should contain Manoeuvre Arms with common mobility and adequate levels of protection, assisted by Support Arms to support manoeuvre and to give indirect firepower, together with Support Services to provide sustainment. Support service elements require sufficient—but not necessarily common—levels of mobility and protection. Commanders of all types of forces need the means to command and, if not integral to their commands, the ability to request timely fire, engineer and administrative support.

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[32] See CFP 300(1) Chapter 2.

There are penalties in terms of loss of cohesion and decreased tempo with frequent re-grouping. The extent of the penalty will depend upon the level of command, the nature of the organization and the type of task. Where possible, standard groupings should be employed on operations. If this is not feasible on initial deployment to a theatre, and ad hoc organizations are formed, the penalties involved should be clearly recognized. Ad hoc organizations need time to mature and develop procedures, working relationships and the ability to communicate at the level of shared implicit intent. Where an ad hoc organization or unit is created in theatre to cover a specific capability gap, its command relationship to other units or formations must be addressed and made known. Once committed on operations, troops and resources are allocated and grouped to achieve missions; subsequent re-grouping, which costs time and effort, and loss of tempo, should be minimized. Alternatives to re-grouping should be considered first: for example, switching fire support is quicker than re-grouping engineers. Logistic constraints may preclude quick re-grouping. Therefore, commensurate with the need to concentrate force, tailor tasks as far as practical to existing groupings.

In certain circumstances, the fundamental of employing standard groupings will have to be broken when forces for 'special tasks' are assembled under a specified commander. These forces should be built around existing formation or unit headquarters as far as possible, as they have the necessary command facilities. However, such forces may have to be improvised. At the tactical level, 'battle grouping' can take place around any manoeuvre arm, support arm or support service unit. When applied flexibly, this arrangement offers economies of effort allowing concentration of force elsewhere.

ORGANIZATION IN RELATION TO DOCTRINE

THEATRE FRAMEWORK

The framework of operations for an 'ad hoc' coalition will largely be determined by the nation contributing the largest forces to the theatre. In fully integrated operations, the framework will normally be an adaptation of alliance doctrine, such as NATO doctrine. Other circumstances may dictate the use of a combination of these approaches. In most cases, the theatre of operations is sub-divided into a number of **areas of operations,**[33] which complements the division of a theatre into combat and communications zones. In operations other than war, these terms may not be appropriate.

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[33] 'Area of Operations' is explained in CFP 300(1) Chapter 5.

OPERATIONAL FRAMEWORK

The framework of **deep**, **close** and **rear operations** is a means of visualizing operations and aids synchronization. The terms deep, close and rear are used to describe how these three operations relate to each other—primarily by function (*what they are to achieve*) and secondly by geography (*where they are to achieve it*). Use of the framework helps the commander relate friendly forces to one another, and to the enemy, in terms of time, space, resources and purpose. The simultaneous prosecution of deep, close and rear operations contributes to the defeat of the enemy.

APPLICATION TO COMMAND

In principle, the organization of command on operations should reflect the framework of deep, close and rear. A commander applies this framework:

- To provide a basis for the decentralizing of decision-making.
- To promote the necessary synchronization of operations in purpose, time and space to achieve decisive action, and to designate the main effort.
- To describe where personal priorities should be set (commander's focus). He cannot afford to concentrate solely on the close battle.

A superior commander applies the operational framework to establish his command organization by *activity* and *space* In nominating points of command within his span of command for deep, close and rear operations, a commander decentralizes decision-making. The superior commander must match his organization of command with his intent and concept of operations. His options for decentralization will depend upon the situation and the control and communications resources available. Each subordinate commander should have responsibility for the control of operations within his delegated area of operations. Areas of operations at different levels of command, however, may overlap. For example, the deep operation of a subordinate level of command will normally correspond to the close operation of a superior, and vice versa. Areas of interest and influence,[34] however, can overlap at the same level of command. This arises from a common requirement to focus on the enemy, who will not respect the boundaries of our own forces.

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[34] Described in CFP 300(1) Chapter 5.

Synchronization is the focusing of resources and activities to produce maximum combat power at the decisive time and place. Having decentralized his command, the superior commander must remain able to synchronize the activities of his subordinates to seek simultaneity and to preserve unity of effort across his force. Synchronization involves the orchestration of operations primarily by activity and time, and secondarily by space. Deep and rear operations tend to be continuous activities while close operations are likely to be of shorter duration. A commander's most powerful tool in synchronizing operations is the designation of main effort. Shifting of main effort depends upon the situation, however, predicting any shifts of main effort too far in advance must be resisted.

The focus of a commander's personal attention will shift from **future plans** to **current operations** as required. If his plan requires, or circumstances are such that he focuses on current operations, he should normally concentrate on whichever of deep, close or rear operations represents his main effort. His priority for future plans, however, is likely to be whichever of deep or rear operations sets the conditions for decisive close operations. In battle, the conduct of deep operations is typically the commander's key concern for much of his time, provided he can delegate authority for discrete close and rear operations to subordinate commanders. When expecting decisive action in close operations, the commander would normally focus on these, synchronizing the activities of his subordinate commanders. He needs, meanwhile, to maintain a careful watch on the progress of deep and rear operations, which may affect the outcome of both current and subsequent close operations, and to adjust his priorities as required.

COMMAND OF DEEP OPERATIONS

Deep operations expand the battlefield in time and space, making it difficult for the enemy to concentrate combat power, and thus diminish the coherence and tempo of his actions, creating favourable conditions for close operations. The range and lethality of modern weapon systems, tied to accurate and responsive acquisition and communication systems, allow deep operations to contribute directly to striking the enemy. Deep operations focus selectively on key enemy vulnerabilities. In his design for operations, the commander will normally devote reconnaissance, intelligence, surveillance and target acquisition (RISTA) effort, firepower and manoeuvre resources to deep operations in order to develop the conditions (shaping the battle) for close operations.

The scope of deep operations can be summarized as RISTA followed by STRIKE. RISTA finds, analyzes and tracks the enemy STRIKE has two components. First, automatic engagements of enemy targets with artillery, air or electronic warfare in accordance with the Attack Guidance Matrix (see example at page 108 for format) derived from the targeting process. Second, attacks that are planned operations in which most combat functions are integrated to use manoeuvre to strike deep. Command of discrete deep operations must be left to the appropriate force commander.

A formation commander will normally control deep operations himself. Only the commander has the facilities to control the means required to prosecute deep operations. These include appropriate reconnaissance, intelligence, surveillance and target acquisition, and strike assets (artillery, aviation and electronic warfare units), supported by air.

COMMAND OF CLOSE OPERATIONS

The usual objective of close operations is to **strike** the enemy. However, close operations may also be used to **fix** the enemy to give freedom of action elsewhere. Close operations are normally conducted by subordinate formation or unit commanders who have the mission and resources to strike the enemy. Close operations transpire typically in immediate contact with the enemy. A local subordinate commander is well placed to direct the conduct of close operations as he can formulate, and subsequently adjust, the detailed execution of plans to meet local circumstances, which will change after first contact with the enemy. Nevertheless, the superior commander retains the responsibility for the command and coordination of close operations when multiple engagements require synchronization.

The superior commander can reduce his active points of command (see Figure 4.1 at page 47) by sequencing his actions. In other words, he should ensure subordinates tasked with close operations are not all simultaneously committed. However, while this may reduce the load on the command organization, there are considerable benefits in achieving simultaneity of both deep and multiple close operations. Thus, the organization of command must be sufficiently robust and flexible to maintain effective command over a number of concurrently active points of command.

COMMAND OF REAR OPERATIONS

Rear operations refer to operations in the friendly rear area and under-pin both deep and close operations. They ensure freedom of action of the force by sustaining combat operations (whether exploiting success or recovering from combat) and retaining the freedom of manoeuvre of uncommitted forces. The superior commander will determine the division of responsibility for the overall protection of the rear area. Command of rear operations is not synonymous with command of support services.

Support service activities are complemented by activities such as establishing and securing lines of communication and protecting uncommitted forces. Units, installations or other locations within the rear operations area may become targets of enemy deep operations. In these circumstances, rear operations may be augmented with specific capabilities tailored to the threat according to overall priorities. Thus, the command organization of rear operations may include the capability to gather intelligence, and to plan and mount close operations, in addition to its primary role of sustaining the force. **To avoid potential clashes of interest or priorities, unity of rear command is essential**. Therefore, a commander rear operations must be appointed at every appropriate level with clear command relationships to all forces located within his area of operations.

Within a theatre of operations, rear operations take place both in the communications zone and in the combat zone. Where such operations overlap, command arrangements must be confirmed to preserve unity of effort. This applies equally to logistic operations and security matters, including the protection of base areas and lines of communication.

CONTROL OF OPERATIONS

Control measures are required to coordinate operations and to reduce own forces causing friendly casualties. However, to be consistent with Mission Command as noted in Chapter 3, a commander uses minimum control measures so as not to limit unnecessarily the freedom of action of his subordinates. A commander should understand whether the method of control during a major operation or battle is procedural or positive as this would affect the freedom of action of his subordinates. Control can include elements of both. **Procedural measures** are those previously agreed and promulgated, including boundaries, fire control lines, designated engagement areas, restricted fire areas and limits of exploitation. They are of particular significance in joint operations. **Positive measures** rely on positive identification and clearance to act, which puts greater emphasis on communications, and can reduce tempo.

The balance between procedural and positive control measures in a theatre of operations will depend upon:

- The type of operation and the environment (including terrain).
- The available technology, including position-finding and identification equipment.
- Any agreed, existing, national, or joint and combined procedures and rules of engagement.

Promulgation of Control Measures. These are listed typically under Coordinating Instructions in the Execution paragraph of an Operation Order.

POSITION OF THE COMMANDER

Battlefield experience demonstrates the dilemma facing all commanders: where best to position themselves on the battlefield or theatre of operations. A commander could either go forward to lead and motivate part of his force or keep to the rear in an attempt to coordinate the actions of his span of command and remain in contact with his superior headquarters.

At the lowest levels of command, it is likely that the commander will be in direct contact with those that he commands. At platoon and company levels, for example, a commander will normally be able to see his soldiers and thus give direct orders. At each successive level, the physical separation between a commander and his subordinates will increase. In an experienced unit or formation, the commander may be able to command in this way most of the time, entrusting his subordinates. However, personal contact or intervention at the main effort will often become imperative. Similarly, when a commander loses his 'feel' for the situation, he may well need to deploy forward to re-establish a clear perception of events.

The commander must consider his position in relation to the forces he commands and his mission. The decision as to where he positions himself can have important consequences, not only for the command organization, but also for the conduct of operations. The basic factors influencing that decision are common for both the operational and tactical levels:

- Access to information on which to make timely decisions, including the ability of the commander to judge the condition and morale of his own forces.
- Communications to points of command Within technical limitations, communications systems must be adapted to the needs of the commander, and not vice versa.
- Planning and decision-making capability.
- Security, including physical protection.

During battle, the commander must consider his position in relation to the forces he commands and his mission. At the lower tactical levels, the commander must lead by personal example and physically communicate with those he directs. Typically, the commander will command one major close operation at a time, with the immediacy of the situation requiring him to be well-forward. While there may be occasions where personal intervention at a precise point will override all other factors, the commander should consider how this would affect his communications with other points of command. Structures and equipment must be organized to support him forward.

At higher levels of command, including the operational level, the commander's decision about where to base himself is less straightforward. The commander will have a wider range of responsibilities (including liaison with the host nation and national contingents in combined operations) and a more complex battlefield framework will influence his choice of location. In joint operations, both air and land component headquarters should be co-located.

The position that a commander chooses for himself has an important effect on his ability to assess progress, interact with staff and subordinate commanders, and to influence events. Forward command assists commanders to make timely decisions and so grasp fleeting opportunities. However, if a commander is too close to the action, he risks becoming embroiled in a side-show that obscures his overall vision, and undermines his judgement and the efforts of his subordinates. Thus, a commander needs to strike a careful balance between forward command and commanding further back. Therefore the most suitable position **is that point where the commander can best influence the progress of the campaign, major operation or battle by making timely decisions appropriate to *his level of command*.**

DEPUTIZING OF COMMAND

Brigade commanders are not historically supported by deputy commanders. The concept of deputies in the form of seconds-in-command, however, is not alien to the army; they exist from section to battalion level. In principle, the requirement for deputy commanders depends upon the circumstances, including the time-scale and nature of operations. There is a requirement for deputizing when one or more of the following conditions apply:

- The provision of succession in the chain of command (for example, in the event that the original commander is a casualty).
- When there is a need to reduce the burden on a commander by delegating authority.
- When deputy commanders of joint or combined forces are required in order to promote cohesion.
- When there is a need to provide short-term relief for the commander (for example, when he is absent from his place of command either on duty or leave).

Seconds-in-command provide succession at the lower tactical levels and are normally available to assume command at little or no notice if the original commander is no longer available to exercise command. On operations at formation level, procedures for alternate command rest on nominating a subordinate commander to assume command. The potential practical difficulties of adopting this procedure should be recognized when setting up the organization of command for a particular campaign or major operation. A subordinate not only has to move to join the superior headquarters (if it still exists), which will take time, but also must acquaint himself fully with the situation at that level of command. Only then is he in a position to assume command effectively. This will be achieved more quickly if he is fully conversant with his predecessor's intent.

Delegating command authority allows the senior commander to concentrate on particular areas or concerns, leaving a nominated assistant or deputy to concentrate on others. For example, deputy commanders may have specific, delegated powers of budgetary and financial authority in peacetime. On operations, if the commander were to fall in action or be otherwise incapacitated, the nominated deputy commander could be available to take his place. Alternatively, those who deputize for the commander in peacetime may not necessarily deploy with a formation to a theatre of operations. For example, the deputy may be retained at the home base to look after the residual command responsibilities and to train reinforcing units.

The balanced appointments of commanders and deputy commanders of combined forces can strengthen the collective command of an alliance, and bond coalition forces together. This affords a visible expression of national commitment and representation in the higher command. In national joint operations, single service deputy commanders are typically employed at the Joint Force Headquarters (JFHQ) level.

SUMMARY

The theory of command organization comprises the organization, operational framework (deep, rear and close operations), position of the commander and the concept of deputizing of command. Command relationships are laid out in the accompanying annexes to this chapter. This concludes the theory of organization and leads into Chapter 5, which details the implementation of this theory.

CHAPTER 4 – ANNEX A

COMMAND RELATIONSHIPS

	Full Command$^{(1)}$	COMMAND$^{(2)}$		CONTROL$^{(5)}$		Planning Authority$^{(7)}$
		Operational Command$^{(3)}$	Tactical Command$^{(4)}$	Operational Control$^{(6)}$	Tactical Control	
1. Assign Separate Employment of Components of Units/Formations	X	X				
2. Assign Missions$^{(8)}$	X	X		X		
3. Assign Tasks	X	X	X	X		
4. Delegate Equal Command Status	X	X	X	X		
5. Delegate Lower Command Status	X	X	X	X		
6. Coordination of Local Movement, Real Estate and Area Defence	X	X	X	X	X	
7. Planning and coordination	X	X	X	X	X	X
8. Administrative Responsibility$^{(9)}$	X					

Table 4A.1 – Command Relationships

Notes:

1. Canadian and Allied doctrine does not permit the surrender of complete command of a unit or formation to forces of another nation or a combined force commander. The national authority, normally the CDS, therefore, always retains FULL COMMAND.

2. Command terms are normally used with the manoeuvre arms, i.e. Infantry, Armour, Aviation and close support Engineers, i.e., Infantry Coy OPCOM to a Armour Regt.

3. OPCOM is the authority granted to a commander to assign missions or tasks to subordinate commanders, to deploy units, to reassign forces, and to retain or delegate operational/tactical command or control as may be deemed necessary. This definition is slightly different than AAP-6.

4. A commander assigned forces under TACOM may allocate tasks to those forces but only within the parameters of the current mission given to him by the higher authority which assigns the forces. TACOM is used where the superior commander recognizes the need for additional resources for a task but requires the resources intact for a later role. An example would be a combat team required for a bridge demolition guard assigned TACOM to the appropriate battalion commander. When the task is complete, the TACOM relationship with that battalion ends.

5. Control terms are normally used with support or service support arms, i.e., Artillery, Signals, Military Police, general support Engineers, etc. where a technical authority generally exists to advise on employment of these resources i.e. 79 Sigs Sqn OPCON to 2 Bde.

6. OPCON is the authority delegated to a commander to direct forces assigned so that the commander may accomplish specific missions or tasks which are usually limited by function, time, or location; to deploy units concerned and to retain or assign tactical control of those units. If the requirement develops for separate employment, the higher commander must approve the change.

7. Planning authority is used where there is the potential for a command relationship in the future. PLANNING AUTHORITY gives the units/formations involved, the authority to liaise directly for planning purposes. This authority could be given, for instance to a unit undergoing workup training in Canada with the unit they are to replace on UN duty.

8. Mission is defined in AAP-6 as: "A clear, concise statement of the task of the command and its purpose".

9. Sustainment responsibility is not included with the Command Relationship for any joint, combined or multinational operation. Within national arrangements only, OPCOM, TACOM and OPCON normally include the Administrative Responsibility ATTACHED FOR DAILY MAINTENANCE. If the relationship is other than normal combat supplies, the exact relationship must be specified.

Miscellaneous:

- Command Relationships will always be qualified by the DTG at which they begin. The DTG at which they end should also be specified if known.
- LOs are normally associated as a SOP to the unit/formation where they will be employed. If not, the term ALLOCATED may be used. Air support sorties are ALLOCATED.
- Coordination centres such as the TACP, EWCC and FSCC normally function with a unit/formation as a SOP. If not SOP, they should be assigned OPCON.
- The NATO term COORDINATING AUTHORITY may also be encountered. It is **not** directly applicable to Command Relationships and is defined in the Glossary.

CHAPTER 4 – ANNEX B

ADMINISTRATIVE RELATIONSHIPS

	ATTACHED FOR ADMINISTRATION(1)	ATTACHED FOR ADMINISTRATION LESS ...(2)	ATTACHED FOR DAILY MAINT(3)	ATTACHED FOR DAILY MAINT PLUS/LESS ...(4)	PLANNING AUTHORITY
1. Administrative Responsibility	X	X	X	X	X
2. Personnel Support	X	X			X
3. Logistic Support	X	X	X(5)	X	X

Table 4B.1 – Administrative Relationships

Notes:

1. The gaining unit or formation has full authority to direct, and responsibility for, all the logistics and personnel support matters of the formation or unit ATTACHED FOR ADMINISTRATION.

2. ATTACHED FOR ADMINISTRATION LESS … is a relationship used when the nature of the operation makes complete administrative support impossible or uneconomical because of time, distance or resources. The functions not transferred are stated, e.g., "**less personnel administration.**" Exclusion of a function does not preclude the provision of advice or, in an emergency, support in the excluded activity.

3. ATTACHED FOR DAILY MAINT is a relationship in which the gaining commander has authority to direct and responsibility for meeting the routine requirements for combat supplies of the transferred unit or formation. The parent unit or formation retains responsibility for all personnel and logistics support other than fuel and lubricants, ammunition, rations and water (see Annex A, Note 9).

4. This relationship is similar to ATTACHED FOR DAILY MAINT but is used where there is an addition or exclusion to the normal combat supplies. Such a relationship might well occur, for example, when a helicopter squadron has a command relationship with an army formation. All combat supplies will be provided "**less aviation fuel**" which will remain a parent unit responsibility. The addition could be "**plus spare parts**" or "**plus recovery**".

5. Combat supplies only. Other logistic supplies may be provided if resources permit.

Miscellaneous:

- Administrative relationships should be qualified by the DTG at which they begin. The DTG at which they end should also be specified if known.

- Administrative relationships have not been clearly specified in NATO. Therefore, the definitions in this Annex can be assumed to apply to Canadian units only. Administrative relationships in any multi-national force must be negotiated between the forces involved.

- ADMINISTRATIVE CONTROL is defined by NATO as Direction or exercise of authority over subordinates or other organizations in respect to administrative matters such as personnel management, supply, services, and other matters not included in the operational missions of the subordinate or other organizations. (AAP-6)

- Command relationships as specified in Table 4A–1 do not include administrative support for any relationship other than FULL COMMAND. This chart is used to establish the administrative arrangements for manoeuvre and support arms as well as between support service units and the formation they are supporting.

CHAPTER 4 – ANNEX C

ARTILLERY TASKS AND RESPONSIBILITIES

Artillery with a Tactical Task of	Answers Calls for Fire in Priority from	Establishes Liaison with	Establishes Communication with	Furnishes BCs/FOOs/ FC Parties to	Weapons Moved and Deployed by	Has as its Zone of Fire	Has its Fire Planned by
Direct Support	1. Directly supported formation/unit. 2. Own FOOs/FC Parties 3. Force field artillery(1)	Directly supported formation/unit	The directly supported manoeuvre formation/unit	BC to unit HQ. FOO/FC Party to each manoeuvre sub-unit of the directly supported formation/unit	Direct support artillery unit commander or as ordered by force field artillery HQ(1)	Zone of action of the directly supported formation/unit	Develops own fire plans in coordination with directly supported formation/unit
Reinforcing	1. Reinforced artillery unit 2. Own FOOs/FC Parties 3. Force field artillery HQ(1)	Reinforced artillery unit	Reinforced artillery unit	No inherent requirement	Reinforced artillery unit or ordered by force field artillery HQ(1)	Zone of fire of reinforced artillery unit or zone prescribed	Reinforced artillery unit
General Support Reinforcing	1. Force field artillery HQ(1) 2. Reinforced artillery unit 3. Own FOOs/FC Parties	Reinforced artillery unit	Reinforced artillery unit	Reinforced artillery unit if approved by force field artillery HQ(1)	Force field artillery HQ(1) or reinforced artillery unit if approved by force field artillery HQ(1)	Zone of action of the supported formation/unit to include zone of fire of the reinforced artillery unit	Force field artillery HQ(1) or as otherwise specified
General Support	1. Force field artillery HQ(1) and target acquisition artillery 2. Own FOOs/FC Parties	No inherent requirement	No inherent requirement	No inherent requirement	Force field artillery HQ(1)	Zone of action of the supported formation/unit or zone prescribed	Force field artillery HQ(1)

Table 4C.1 – Artillery Tasks and Responsibilities

Notes:

1. Force Artillery Headquarters or Higher Artillery Headquarters.
2. Brigade G3 staff must be consulted before gun groups are moved within, into or across their brigade boundaries. The close support artillery CO is responsible for this.

CHAPTER 4 – ANNEX D

AIR DEFENCE ARTILLERY TASKS AND RESPONSIBILITIES

Air Defence Artillery with a Tactical Task of	Air Defence Priorities Established by	Establishes Liaison with	Establishes Communication with	Weapons Moved and Deployed by
Direct Support	Directly supported formation/unit.	Directly supported formation/unit	The directly supported formation/unit	Direct support air defence artillery commander
Reinforcing	Reinforced air defence artillery unit	Reinforced air defence artillery unit	Reinforced air defence artillery unit	Reinforced air defence artillery unit
General Support Reinforcing	1. Force air defence artillery HQ 2. Reinforced air defence artillery unit	Reinforced air defence artillery unit	Reinforced air defence artillery unit	Reinforced air defence artillery HQ
General Support	Force air defence artillery HQ	No inherent requirement	No inherent requirement	Force air defence artillery HQ

Table 4D.1 – Air Defence Artillery Tasks and Responsibilities

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CHAPTER 5 - THE IMPLEMENTATION OF A COMMAND ORGANIZATION

This chapter concludes the Components of Command and builds upon the Theory of Command Organization detailed in the previous chapter. Chapter 5 will describe the implementation of command support systems in the army.

REQUIREMENTS

A commander needs support if he is to exercise command effectively. At every level of command above the lowest tactical level, there are four basic support requirements:

- Personnel who assist the commander in the exercise of command and act on his behalf (the staff, arms and service advisors and liaison officers).
- Robust communication and information systems.
- A secure working environment for the commander and his staff (a headquarters) that includes an administrative and security organization to protect, sustain and move the commander and staff.
- Standard procedures, including those for decision-making, which focus command and staff effort within and between headquarters.

DESIGN OF A COMMAND SUPPORT ORGANIZATION

As detailed in Chapter 3, the Canadian approach to operations is Manoeuvre Warfare, and our command philosophy is Mission Command. These two tenets, coupled with the technological advances of the modern battlefield, highlight the need for a command support organization that is cohesive, so as to avoid unnecessary duplication, and flexible, in order to adapt to change. There is a temptation to let the size of the staff, and hence the headquarters, grow to unmanageable (and dangerous) proportions, risking its own survivability. The design of this organization must also take into account the threats to the command system. These threats include those posed by the enemy, including Command and Control Warfare, environmental conditions, and 'self-inflicted' threats such as human failings, information overload, equipment failures and resource costs.

THE STAFF

FUNCTION

In contemporary warfare, a commander is incapable of exercising command alone except in the simplest and smallest of organizations, such as those found at the lowest tactical level. Therefore, at most levels a staff exists to assist and support the commander. The staff has no authority by itself; it derives authority from the commander and exercises it in his name. Therefore, all of its activities are undertaken *on behalf of the commander*.

Regardless of the level of command, the staff has two main roles:

- **Assisting the Commander**. The staff's assistance to the commander rests primarily with the control function. This function comprises coordination, in the form of control measures issued to subordinate units and formations, and monitoring, which refers to the subsequent flow of information back into the headquarters. The staff help develop and promulgate the control measures (coordination), and manage the flow of information (monitoring) to help the commander refine and adjust the control measures, and possibly his plan, accordingly. The commander completes the feedback mechanism with information that he receives directly from subordinates and his personal observations of the battlefield.
- **Helping Formations and Units**. The staff also helps subordinate formations and units, whose ability to live, train and fight depends, to a large extent, on the actions and decisions of the staff. The hallmark of a proficient headquarters is its staff's capacity to work in a timely, efficient and co-operative manner. It is the responsibility of the staff to ensure the passage of all relevant information to superior, subordinate and flanking formations and units.

The commander is not the sole decision-maker. In practice, he focuses the efforts of his staff by giving guidance and making the key decisions, from which a framework of action is developed. By setting priorities and devolving decision-making authority, the commander can concentrate on his own business of making the essential decisions applicable to his level of command. By lowering the level of routine decision-making, the commander allows his staff to act within their own areas of responsibility and in accordance with his intentions.

THE STAFF OFFICER

The staff officer assists his commander by:

- Anticipating the commander's requirements. Understanding the commander's intent and offering informed advice when called for, or when an important factor has been overlooked.
- Providing the commander with information to assist him in reaching decisions, while making his own decisions within his area of authority, thus protecting the commander from irrelevant detail.
- Developing and implementing the commander's plan by issuing and monitoring the execution of directives and orders.

Qualities of a Staff Officer. Many of the same qualities required by commanders (described in Chapter 2 – The Human Component of Command) also apply to staff officers. This is particularly so for senior staff officers in both national and multinational (combined) appointments who may have considerable delegated powers of authority. Staff officers also work with subordinates and support personnel (such as clerks and signallers) and thus will be required to lead others. In addition to the fundamental quality of leadership, the following personal qualities typify a good staff officer:

- **Character**. A staff officer must be loyal, tactful, trustworthy and supportive of his commander yet at the same time retain an independence of thought and judgement. He must accept responsibility willingly and stand by his decisions; he must advise, consult and co-operate with others, and be prepared to represent his superior's decisions and to sacrifice self or vested interests. A wise staff officer will also cultivate a pleasant disposition.
- **Intellect**. No staff officer will succeed unless he is professionally competent. He must strive to master all aspects of his area of responsibility by continued study and personal research. He must be knowledgeable, imaginative and capable of anticipating, acting and reacting in a flexible manner. The skilled staff officer is adept at thinking and working under pressure, communicating accurately, both verbally and on paper, and with emphasis on clear, succinct, powers of expression. Proof of his intellect will be his ability to synthesize information from disparate, and often conflicting, sources. This ability is required in order to create a clear picture of the situation allowing the provision of sound advice to the commander. Above all, he must be capable of taking a broader view of his responsibilities and not allow himself to become too compartmentalized in his outlook.
- **Selflessness**. The measurement of a staff officer's success is the ease with which subordinate formations and units conduct operations. Direct rewards or gratitude are seldom given, nor should they be

expected. Working conscientiously without recognition or reward demands self-confidence and maturity.

- **Industry**. The object of the staff is to relieve the commander of routine and detailed work. Therefore, despite the requirements for originality and creativity, the reality of much staff work is solid hard work, where a methodical, systematic approach and eye for detail are necessary. A staff officer responsible for a team must be able to delegate authority, co-ordinate the team's work, and present a solution based on team effort succinctly, accurately and on time.

Implications for Self-Development. All staff officers should take an interest in the activities of their superiors and of other branches of the staff to widen their professional horizons. This not only prepares individuals for more senior positions in command or staff but also allows them, if the need arises, to take over from other members of the staff, adding an element of flexibility to the headquarters. A commander should foster this ethos and develop it through training.

ORGANIZATION OF THE STAFF

The Canadian Army does not possess a unified general staff system, as do many European nations. There is no formal distinction—either by dress, qualifications or title—between members of the staff and those serving on regimental duty, or between members of the staff and those of a 'general staff'. It is important that the differences are realized between the continental general staff system (NATO) and the Canadian practice of staff responsibilities, given the likelihood of future coalition operations. A summary of the main differences is at Table 5.1.

General Staff Division	Principal Functions (NATO System)	Principal Functions (Canadian Army)	Remarks
G1	Personnel manning and organization; welfare; public relations.	Personnel manning; welfare; medical/dental services; JAG; Chaplain; and Public Information.	Canada – Personnel allocation in conjunction with G3.
G2	Intelligence.	As NATO.	
G3	Current Operations and Movement (Ops); Forward Planning (Plans); Coordination	As NATO, but includes coordination of info ops, assisting with establishing policy for Public Affairs;	Canada – At brigade level, the G3 is responsible for coordination of

General Staff Division	Principal Functions (NATO System)	Principal Functions (Canadian Army)	Remarks
	of combat support.	Provost Marshall; NBC, targeting policy; C2W including OPSEC, EW, deception and PSYOPS.	all staffwork.
G4	Logistics; Coordination of support services.	Logistic Support and Equipment Support functions of support services.	NATO – the provision of medical services is a G4 function.
G5	Civil–Military Relations.	As NATO.	
G6	Communication and Information Systems.	Function extends to include advice on the management of the electromagnetic spectrum.	

Table 5.1 – Comparison of Staff Systems

Staff officers are employed above unit level in three categories:

- **Personal Staff**. This group includes executive assistants (EA) and personal assistants (PA). An executive or personal assistant is a commander's personal staff officer whose work will largely depend upon the individual commander. At formation level, this staff officer must work closely with officers from all branches of the staff and with those of superior and subordinate headquarters.
- **General Staff**. This staff assists the commander in meeting responsibilities for overall command. The general staff is concerned with planning, co-ordinating and supervising the execution of operations and training. It also arranges the support arm, support services and liaison required to accomplish the mission. General staff may be members of single service staffs or joint staffs, either at the National Defence Headquarters or at joint or combined headquarters. General staff officers are appointed, in principle, *without regard to cap-badge*, although some positions may be annotated as more suitable for officers with particular training, arm or service experience.
- **Special Staff**. The Special Staff provides the commander and general staff with advice and assistance in specific professional or technical

areas. These officers hold designated appointments in general staff branches by virtue of their expertise in specific subjects such as medicine, law, religion or public information. Although they are placed in specific branches of the general staff, the special staff members are equally responsive to any member of the general staff who requires their advice or assistance. Their staff responsibility is normally limited to their area of professional expertise. Officers are normally appointed to specialist staff posts based on cap-badge and arm or service experience.

SPECIFIC RESPONSIBILITIES

The commander requires a number of key advisers to relieve him of the burden of control, and to provide timely and unfiltered advice in support of his decision-making. At formation level and above, this group will normally include the heads of the general staff branches, together with the Arms Advisers and Specialist officers working as General Staff. The work of the staff is coordinated by the Chief of Staff (COS), the commander's principal general staff officer at division level and above (this is the responsibility of G3 at brigade). In contrast to most NATO armies, the Canadian Army has two principal general staff officers at divisional level and above. The COS co-ordinates the G2, G3 and G6 functions, and under his direction, the ACOS (Admin) co-ordinates G1, G4 and G5 functions.

Although the COS is not the commander's deputy, alongside the ACOS (Admin) and others of equal rank, he is *primus inter pares*. He must be capable of acting on behalf of his commander, including decision-making in his absence and co-ordinating the work of all staff branches. The development of a close working relationship between a commander and his COS, based on mutual understanding and trust, is vital.

ADVISORS

The senior commander or commanding officer of each manoeuvre arm, support arm or support service organization has direct access to the commander by virtue of his appointment. He may also provide advice to the commander and the commander's staff on the capability and employment of the formation, unit, arm or service. Although technically these officers are not a part of the formation staff, they provide important advice and assistance. They are therefore designated as advisors.

Access. Advisers have access to the commander both as subordinate commanders and as advisers. They have access to their counterparts at higher and lower levels of command on technical matters.

There are two categories of advisers:

- **Arms Advisers**. The arms advisers are the commanders of the manoeuvre and support arms who have the dual task of commanding their troops and providing advice and assistance to the commander and staff. Although the commander may require any subordinate commander, including those of infantry and armour formations or units, to act in this capacity, the requirement is normally restricted to the commanders of the artillery, engineer, signal and aviation units. Usually commanders of the artillery and signal elements are located at the headquarters of the formation they are supporting. Commanders of engineer and aviation units are normally located at their own headquarters and make frequent visits to the formation headquarters; they also provide liaison detachments that remain with the headquarters. The artillery commander and other selected arms advisers form part of the tactical headquarters.
- **Service Advisers**. At all levels, commanding officers of support service units are located at their units and are responsible to their formation commander. In addition, they are responsible for providing advice to all commanders on the employment of their respective functional personnel and sub-units, whether integral or attached, in support of operations. They offer or provide upon request any assistance necessary, within their area of functional expertise, to effect the efficient and smooth provision of support.

RELATIONSHIPS INVOLVING THE STAFF

Between the Commander and Staff. Although a commander sets the pace and is the principal decision-maker, the staff has a vital role in informing him, developing his decisions and making subsidiary ones. The relationship between a commander and his staff should be characterized by a climate of loyalty, respect and individual initiative rather than one that is fawning and unquestioning. Independence of thought and timely action are vital.

Between the Staff and Other Levels of Command. The relationship between the staff and both subordinate and superior commanders and their staffs is important. It must be based upon mutual respect and developed through a conscientious, determined and helpful approach to the solving of problems; anything less will undermine confidence in the exercise of command. Friendly personal relationships between members of a headquarters and the staff of superior and subordinate headquarters are essential.

The creation of an effective and closely knit 'staff team' during peacetime, both within and between headquarters and units, is essential. A staff cannot work efficiently without complete cooperation between all branches and services. There must be no secrets between branches, and no abrogation of responsibilities. The COS and other principal general staff officers have a key role in fostering this atmosphere. However, the building of a staff team can be inhibited by frequent changes in personalities and infrequent opportunities to exercise under operational circumstances. The disruption caused by such 'real-world' problems can be reduced by dedicated team-building efforts and the use of command and staff simulators to sharpen skills before deployments.

While it is important at all levels that a commander strives to maintain two-way contact with all members of his staff, this becomes increasingly impractical at successive levels of command. At battle group level, the commander's staff will have frequent contact with him in peace and on operations. At higher levels, commanders may choose to allow a wide range of staff officers direct access in peace. During operations, however, this may become less feasible and a commander may elect to limit the amount of access. Involving a large number of staff officers in information briefings can foster the personal relationships created in peace, which are essential to the maintenance of trust within the team. This acknowledges their contribution as well as allowing them to hear the commander's deliberations. Decision briefings, however, may have to be restricted to a smaller group of those who contribute directly to the commander's decision-making.

LIAISON

FUNDAMENTALS

Liaison is *that contact or intercommunication maintained between elements of military forces to ensure mutual understanding and unity of purpose and action*. Liaison may be a continuous but informal process, normally achieved through consultations between the respective commanders or their staffs either by face-to-face contact or electronically. Liaison is a standing requirement, especially in combined operations and must not become an after-thought on deployment. Liaison must be reciprocal when:

- A force is placed under the command or control of a headquarters of a different nationality.
- Brigade and higher formations of different nationalities are adjacent.

When liaison is not reciprocal, responsibility for its establishment is governed by the following fundamentals:

- From left to right.
- From rear to front for units of the same echelon.
- From higher to lower echelon.
- From supporting to supported unit.
- From the incoming force to the outgoing force during the relief of combat troops.

ORGANIZATION

Selection of Liaison Officers is critically important. The effect of even one well-trained and motivated liaison officer contributing to the cooperation and mutual understanding between headquarters can be out of all proportion to the individual's rank and appointment. As they represent their commander, liaison officers should know him, understand his plans and be able to express his views convincingly to the commander and headquarters to which they are attached. It is the responsibility of the despatching headquarters to select, train and exercise their liaison officers and brief them on the current situation. The receiving headquarters must provide access to commanders, briefings and any information relevant to their liaison duties. Liaison detachments must provide 24-hour coverage and maintain communications.

Occasionally, the exchange of liaison detachments will be insufficient to ensure adequate understanding and cooperation between formations. This is most likely to be the case in joint and/or combined operations. Integration of staff into each other's headquarters provides a solution. In addition, a commander can employ personal liaison officers to provide an independent source of timely and accurate information.

When electronic communication is impossible, unreliable or not interoperable, it is imperative that formations or units which are operating closely together exchange liaison officers. This may be for a specific purpose and a limited period, such as providing a liaison officer at a reserve demolition to report when their units are clear. Liaison may have to be conducted over a more protracted period when, for example, the activities of a number of formations or units have to be closely coordinated. This is especially important if they are from different nations or if they have not trained together for the activity they have to undertake. In this case, liaison officers should be exchanged between headquarters, and, if they need to be effective for a significant period, they may have to be built up into a liaison detachment.

COMMUNICATION AND INFORMATION SYSTEMS

Communication and information systems (CIS) encompass the systems that bear and share information. CIS are part of the Information Operations combat function and are necessary for the efficient execution of all combat functions. This publication will only deal with the aspects of CIS related to command. Within this context, communication and information systems are a technical means to one end: the effective functioning of command. They exist to serve commanders and their staffs, forming an indispensable 'nervous system' linking points of command. It must be clear that communication and information systems offer a technical solution that augments the 'human' aspects of command, and shall never replace it.

Chapter 1 described the environment of command as an environment of uncertainty in which commanders attempted to make decisions within time constraints. Modern communication and information systems offer great potential benefits to commanders and staff who understand the strengths and limitations of the system. First, the uncertainty of the battlefield will never be entirely removed by a communication and information system. Communication and information systems will never replace the need for a commander to have personal interaction with his superior and his subordinate commanders. Second, the sharing of information on an 'all-informed' basis supports mutual understanding, promotes unity of effort, and encourages decentralization of command authority as espoused by Mission Command. Conversely, it may also be a liability, given a commander with the desire to over-control his subordinates' actions. Third, communications can contribute to decisive action and to military success, and destroy the enemy's will to fight. When used expeditiously, these systems can give a commander a decisive edge over his opponent in reducing decision-action cycles and improving cooperation between arms. Exploiting communication and information systems is therefore a prerequisite for the effective exercise of command, and can assist in implementing a Mission Command philosophy.

There is an ongoing requirement to assess information requirements within any command. Information today is more readily accessible; however, this can lead to ever-greater demands from higher levels of command. There is a danger that the increased availability of information will lead to unnecessary interference with the lower levels of command. Additionally, armed forces today are supported by a multitude of automated information systems that may not necessarily be required for a deployed force, however, because they are available, there may be a demand for their use. This desire to possess all available resources, without understanding the extensive personnel and support costs, will in fact diminish the effectiveness of the military force. The unnecessary provision of communication and information systems will inhibit their effectiveness. The systems are intensive to support and maintain, and must be employed judiciously to enhance responsiveness and contribute to combat power.

REQUIREMENTS AND CONSTRAINTS

Sufficient capacity is required to cope with the quantity of information necessary for a force to operate effectively and to ensure its timely passage. Some information will be required by many users. In this case it is more efficient to transmit the information once over a system that allows users to be 'all-informed'. Other information may need to be selectively disseminated by 'one-to-one' systems or by means of a restricted net. The importance of information management within a headquarters staff, and within a formation cannot be over-emphasized. All communication and information systems must be managed according to the commander's priorities to prevent the wastage of resources, and to ensure the efficiency of the military force.

Communication and information systems must be reliable, robust, resilient and at least as survivable as the supported force. A major threat to communication and information systems is electromagnetic pulse (EMP) and transient radiation effect on electronics (TREE) resulting from a nuclear detonation. Both can result in prolonged interruption of communication links and the destruction of vulnerable parts of a system. Selective destruction by conventional means can also paralyze communication and information systems. Alternate means of communication provide a measure of resilience. Communication and information systems must be organized and deployed to ensure that performance under stress reduces gradually and not catastrophically. Command procedures must be capable of adaptation to cope with system degradation or failure.

The level of security required will depend upon the nature of the protected information and the threat of interception and exploitation of communications traffic. Electronic on-line encryption devices will usually provide communications security. The use of manual codes at lower levels of command will result in reduced levels of security and much slower information flows. A combination of software and control of disks and physical access to terminals will achieve security of information systems. Countering the threats to an information system can be expensive and complicated.

Communication and information system characteristics should not unduly constrain the supported force. These characteristics are determined by:

- **Range**. A communication system should have the range to link all points of command. Communications must be maintained with all elements of the force, including reconnaissance, intelligence, surveillance and target acquisition, deep attack and special forces that may be employed beyond the immediate area of operations.

- **Mobility**. The mobility of a communication system depends upon its individual components. These components must be capable of moving at the same rate as the force they support. However, some elements of the system, especially those with a function to provide range and connectivity to the rest of the force, may need to move much more quickly. The mobility and range of a communication system are therefore closely related and are important factors in the system's ability to support manoeuvre. This places increasing emphasis on the need for a range of technical capabilities, including satellites to link fragmented systems, even at the tactical level.
- Apart from cost constraints limiting the number of systems available, the ability to deploy communications systems is governed by size, weight and power considerations. Strategic mobility is an important consideration, with equipment matched to each formation's role.

Constraints include:

- **Management of the Electromagnetic Spectrum**. There is a finite part of the electromagnetic spectrum internationally allocated for military communications usage. In a joint and combined context, frequency management for friendly forces is difficult even in a benign environment. Efficient use of the available and allocated spectrum is therefore critical to the deployment of a communication and information system.
- **Interoperability**. In joint and combined operations, particularly at the operational level, individual communication and information systems must be compatible. Military systems must also work with civil systems, particularly in operations other than war.

PLANNING OF COMMUNICATION AND INFORMATION SYSTEMS

The nature of the communications requirement becomes evident as soon as the command structure for a campaign develops. Within the planning staffs, close rapport between the G3 and G6 branches must be evident from the outset. The requirement is further defined as each commander identifies his information needs, and with the establishment of command relationships within the military force. The communications structure supporting a force must also allow for the exchange of information with joint and allied formations in a multinational setting.

The responsibility for the provision of communications is from superior to subordinate; and between equivalent levels of command, from left to right. This does not excuse subordinates from careful siting of communications assets to facilitate communications with their higher headquarters. Where flanking formations or units are of different nations, the requirement for communication matches that for liaison—reciprocal.

Various additional factors may necessitate changes to the communication and information system plan throughout the campaign.

- As formation command structures change, so do their information flow requirements; nevertheless, their communications must ensure continuity. Close coordination between the losing and gaining headquarters is necessary to ensure maintenance of communications.
- Any significant movement planned for the force will change the physical area requiring communications. A passage of lines, for example, will likely necessitate extended coverage beyond the in-place force's area of operations before the main body moves.
- The use of Command and Control Warfare by enemy or friendly forces will affect the use of command support systems. Close cooperation between the G3, G2, G6 and Electronic Warfare Coordination Cell (EWCC) staff is necessary to reduce the effects of our own Command and Control Warfare activities. This includes the impact of imposing a restrictive Emission Control (EMCON) state for deception or Operational Security (OPSEC).

The aim of introducing information technology is to save time in our decision-making cycle and to reduce staff activity. Therefore, in planning the introduction of information technology, the key is to sort out what activities need human judgement, where that judgement must guide technology, and where technology can reduce or eliminate human activity. However, great care should be taken to ensure that there are alternative systems available, should the primary system fail. Currently, the flow of information is diminished and errors multiplied as information is transferred from one system to another. The objective is for one-time entry of data at the appropriate level and a seamless, error-free, flow of information to the commander and staff, throughout the formation and with other headquarters including our allies. Further, the ideal communication and information system would be transportable from garrison to operations in order to avoid a doubling of the training requirement.

HEADQUARTERS

PURPOSE AND ORGANIZATION

The term 'headquarters' is often used as a generic term for the grouping of the staff, associated communication and information systems, and the structure providing a working environment. In this sense, the headquarters supports the commander by presenting him with relevant information and providing the means of control and communications for passage of orders and exchange of information. Fundamentals for the design of headquarters from Corps downward are described in terms of **organization** and **function**.

Headquarters at all levels must be survivable and responsive to the dynamics of the chain of command. While the headquarters must reflect the level and nature of the command and the type of campaign or operation to be conducted, a number of common requirements determine the organization:

- **Deployment**. A field headquarters must be structured for easy deployment to, or within, a theatre of operations. This ease of deployment is dependent upon headquarters size and the mobility of its component parts.
- **Continuity of Operations**. A headquarters must be able to sustain operations. This depends on the manning of headquarters to maintain control and the provision of alternate or step-up facilities (see Annex A at page 83). Alternate or step-up headquarters allow movement and assist survivability given ground and air threats. Thus, redundancy must be built into and between headquarters and communication and information systems.
- **Cohesion of Command and Staff Effort**. Command and staff effort must be fully coordinated, or 'fused'. The internal layout, manning, staff procedures and communication and information systems infrastructure facilitate this requirement.

OPERATION OF HEADQUARTERS

Staff officers belong to one of the six staff branches, as described at Table 5.1 on page 71. When deployed, however, headquarters are organized into two primary cells—Current and Future Operations. Supporting these two cells are the specific staff functions such as Operations, the Fire Support Coordination Centre, Administration, Intelligence, etc. Each cell may have representatives from each staff branch. While each function should have clearly defined responsibilities, none will be able to operate effectively in isolation.

Coordination between them is critical. This interaction between functions must be identified early when structuring a headquarters, and arrangements made to ensure that they are efficiently equipped, organized and manned. These functions must work, not only within the headquarters, but also with their counterparts in other headquarters.

There are two focal points for all activity within a headquarters. The principal staff officer—the COS or G3, depending on the level of headquarters, provides the **human focus** for all activity. Regular briefings aid in the flow of information and hence the integration of staff effort. There is also a need for a **physical focus**: a location to which all staff cells have access. Here current information is displayed for use by all staff functions. Ideally, this should be the main map in the Current Operations Cell. Access to Future Operations must not be restricted to a degree that prevents the staff from making timely contributions to planning.

Coordination upward, laterally and downward by physical means becomes difficult once battle has been joined. Greater reliance will be placed on systems and procedures that can access multiple users—electronic means. This could be of an all-informed nature by combat net radio or the trunk communication conference call, or by a system that transmits Fragmentary Orders, Overlay Orders, or any overlay. The automatic transmission of simple directives will be especially important, as staffs and commanders become fatigued.

The key to the efficiency, responsiveness and the survival of tactical level headquarters is restricting their size and rehearsing drills for movement, concealment, defence and working routine. If allowed to grow too big, or to become too dependent on complicated communication and information systems or staff procedures, the effectiveness and survivability of the headquarters will be impaired.

SUMMARY

This chapter described the commander's organizational requirements to exercise command. These requirements include the staff, liaison, communication and information systems, and a headquarters. Taken together, their proper implementation provides a secure platform for the effective operation of the command function. In the next chapter, the specific activities, products and practices that comprise Battle Procedure will be examined in detail.

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CHAPTER 5 – ANNEX A

FUNCTION AND DESIGN OF HEADQUARTERS

HQ TYPE	FUNCTION	REMARKS
MAIN (Brigade/ Division/ Corps/ Army)	Principal location of the commander for the command of deep and close operations. HQ at which deep and close operations are planned and commanded and rear operations is monitored.	• The commander exercises command of deep, close and rear operations wherever he may be located. • At MAIN, the commander is assisted by his COS, and G2/G3 and G4 staff together with arms and service advisors.
TAC CP (any level)	A small and very mobile headquarters with appropriate protection, designed to allow a commander to command forward. It may also be deployed early into theatre or area of operations as a base for specific operations of limited duration.	A commander's ability to command from a TACTICAL CP is limited in scope and time. The level of command support is less than that available at a MAIN HQ.

HQ TYPE	FUNCTION	REMARKS
REAR (Division/ Corps/ Army)	Principal location for the designated commander of rear operations, including sustainment activities. HQ at which rear operations are planned and commanded and deep and close operations are monitored.	• The Rear Operations Commander is supported by G1, G4 and G5 staff together with Support Service commanders. Elements of G2/G3 and arms and service staff may also be present. • At divisional level and above, the REAR HQ is normally the location where sustainment is planned and coordinated.
ALTN (any level)	In the ideal case, a mirror-image MAIN HQ (sometimes REAR).	In practice, resource constraints may rule out the full duplication of manpower, vehicles and equipment, forcing use of STEP-UP HQ.
STEP-UP (any level)	A headquarters which may replicate only key functions of a MAIN or REAR HQ. Used as a preliminary location where the remainder of the HQ will deploy.	

Table 5A.1 – Functions of Headquarters

Field Headquarters. All field headquarters must be able to deploy tactically. A headquarters that has become too large and unwieldy must be reduced. When a commander goes forward to visit subordinates, he should either fly or move with his Tactical Command Post, depending on the threat. If he needs to command forward, he should consider moving his headquarters sufficiently forward to a suitable location or joining a subordinate's headquarters. Alternatively, a commander may elect to command from a Tactical

Command Post which, at formation level, may consist of his command vehicle and those of his principal Arms Advisers.

Alternate Headquarters. Alternate headquarters provide continuity of command when a headquarters either changes location or is put out of action. There are a number of ways to achieve this, but the price of flexibility is additional resources. The ideal solution is to duplicate the headquarters.

Step-Up Headquarters. A Step-Up may replicate essential functions if fewer vehicles, manpower and communication systems are available. It is capable of holding control for only limited periods while soldiers and vehicles are transferred from the previous MAIN or REAR headquarters.

DESIGN

Size and Number of Headquarters. The size of headquarters affects its deployability and survivability. In broad terms, a larger headquarters may provide greater endurance but often at the expense of security and mobility. A smaller headquarters will support higher tempo, but may limit support to the commander. Redundancy in the numbers or size of headquarters gives greater flexibility, but at a cost of greater resource investment and reduced deployability. The key is to strike the right balance thus producing a responsive and agile organization which fully supports the command function. Active measures must be taken to identify those elements that are absolutely necessary and discard the rest.

Hardness refers to the degree of physical and electronic protection a headquarters possesses. Hardening extends beyond providing armoured staff vehicles, as protection may involve a combination of active and passive measures. Small size and hardness together contribute towards survivability, as will frequent movement. In many cases geographical dispersion of command facilities will help to diffuse a headquarters' signatures (visual, thermal, radar and electronic).

Physical Structure. A modular headquarters structure offers flexibility in deployment and employment. It allows elements to deploy only as required for the type of operation envisaged. In theatre, elements of a headquarters can be 'bolted-on' as needed. Modern communication and information systems may allow a large headquarters to split into a number of smaller elements. However, the advantages of separation (in terms of physical and electronic protection) must be balanced against the disadvantages of physical security, loss of personal contact and team planning, thus risking cohesion and unity of effort.

Manning Structure. At brigade level and above, there is a need for an organizational split into current and future operations. In this way, a smooth transition between major operations and battles can be achieved and the continuous nature of warfare can be maintained. The division between current and future operations is also required in most situations for G2, G4 and the arms and services.

Administration. The following administrative requirements must be met: the physiological needs of the headquarters personnel—shelter, rest, food and water; the provision of internal communications, light and power; and collective and individual mobility appropriate to the formation.

SITING

General. Reliable communications, together with the administration and security of the commander, his staff and the other supporting elements, are vital to the effectiveness of command. Headquarters and the communication and information systems that support them are therefore high value targets for enemy Command and Control Warfare. Thus, the siting of headquarters is as critical as their design.

Tactical Level Headquarters. The principal considerations affecting the siting of tactical headquarters are:

- **Communications**. The site must provide good electronic communications, with physical access to visiting commanders and staff. Not only must the site offer reliable communications to subordinate and other headquarters; it should also be screened from enemy EW devices. Access to civil communication systems may be important, but care must be taken to sweep the location for booby-traps and electronic devices.
- **Concealment**. Built-up areas offer the best cover for movement and concealment from radar and thermal surveillance. Building complexes also provide some basic protection against chemical attack.
- **Security**. Headquarters must provide a secure working environment for the commander and his staff. Security is achieved through physical and electronic concealment and protection, and NBC defence measures. There may be a need to assign forces for the physical security of the headquarters and its communications.
- **Accessibility**. The site should be easily accessible but not liable to accidental discovery by roving enemy land or aerial reconnaissance.

Therefore, the use of 'tac-signing', a useful peacetime expedient, should be carefully controlled on operations.

Operational Level Headquarters. In principle, the siting of operational level headquarters follows the same considerations as for tactical, but additional factors apply. Host nation and home base communications are essential. Infrastructure requirements and access to ports or fixed wing airfields may also influence siting.

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CHAPTER 6 - BATTLE PROCEDURE

Chapter 6 will focus on the tools and products that help a commander execute his mission. This chapter builds upon the Human and Doctrinal Components of Command together with the theory and application of command organization described in previous chapters. This chapter prescribes the doctrine for the exercise of command in the Canadian Army. This doctrine is constructed upon the Manoeuvre Warfare approach to warfighting and implemented using the philosophy of Mission Command. Battle Procedure is the principal manifestation of command doctrine, at all levels, in the Canadian Army.

INTRODUCTION

Battle Procedure is the entire military process *by which a commander receives his orders, makes his reconnaissance and plan, issues his orders, prepares and deploys his troops and executes his mission.*

It is the process by which command is exercised: conducting it properly is an essential skill that must be mastered at all levels of command from section to corps. The decision-making part of the process is **the crucial component** and is required at the military strategic, operational and tactical levels of command and across the spectrum of conflict, including operations other than war and in normal military peacetime activity.

Decision-making in the Canadian Army at the lower tactical levels has traditionally been incorporated into Battle Procedure. This publication extends the use of the term *Battle Procedure* to commanders at all levels. This will clarify the commander's role and specific responsibilities throughout the procedure at the higher tactical and operational levels. The essence is that Battle Procedure at all levels is command-led, not staff-driven. Higher echelons of command have available a wider selection of tools to assist them in the execution of their responsibility, however these tools must be properly managed if they are to contribute in a meaningful way to the process. This chapter will aid in creating a common understanding of the use of the tools, the products they generate and their relation to the commander's requirements. It is important to realize, however, that although differences in the scale of this process will exist between the lowest tactical commander and an operational level headquarters, the army's chain of command demands mutual understanding. Battle Procedure is a fully-integrated process which occurs simultaneously at all levels of the chain of command and in joint and combined settings. The commander and his staff must develop an appreciation of the linkages and interdependencies that this implies.

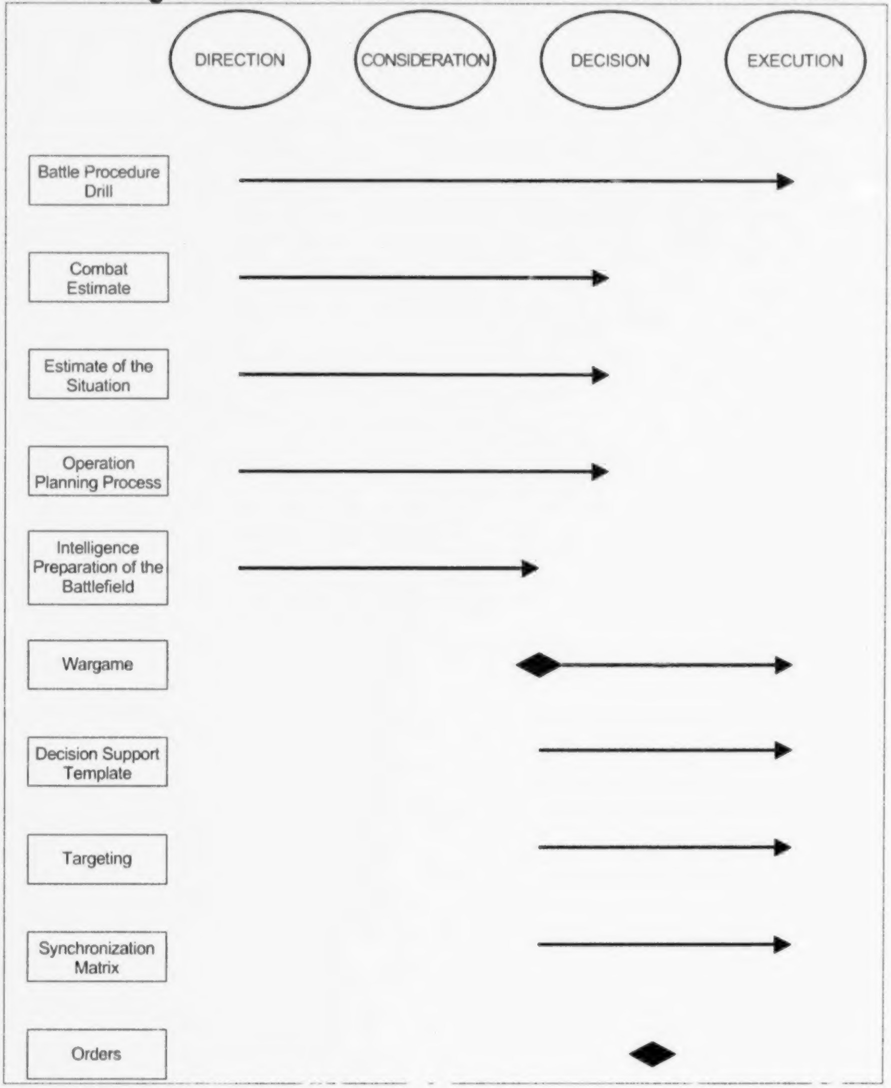
DECISION-ACTION CYCLE AS BATTLE PROCEDURE

The Decision-Action Cycle introduced at Figure 3.2 applies at every level of command and to problems of any degree of complexity. The same four stages: Direction, Consideration, Decision and Execution are the basis of Battle Procedure. Figure 6.1 introduces, in a simplified manner, the major tools available and where they fit into Battle Procedure. Some tools are individual and are useful at the tactical level while others are generated collectively and reflect the complexity of decision-making at the higher tactical and operational levels. These tools can be divided into two basic groups: those leading up to a decision by the commander, and those used to implement and coordinate the execution of that decision.

In **Figure 6-1**, the four stages are listed in order across the top of the diagram with the various tools arranged down the left side. The arrows indicate where, approximately, the tool fits into the Decision-Action Cycle. Estimates are the crucial tool and are completed over the first three stages. The range of this tool includes the combat estimate at the tactical level, a more formal estimate completed by a commander and/or staff officer or a commander assisted collectively by the staff. The latter process by which a commander conducts an estimate (normally not produced in written form) assisted by a collective staff effort has been formalized as the Operation Planning Process. Intelligence Preparation of the Battlefield is an ongoing process, but its direct application to Battle Procedure is the study of enemy and ground incorporated into the estimate of the situation. The Wartime is also critical, in that a number of products (notably targeting, the Decision Support Template and the Synchronization Matrix) used in the Execution stage, directly result from the analysis conducted during the Wartime.

The remainder of this chapter will describe the four stages of Battle Procedure and then proceed to a more detailed analysis of the various tools available. Successful Battle Procedure is based upon logical analysis and the commander's military judgement. While a higher commander may consult his staff throughout the process, he remains responsible for making the final decision. The key to success is to make timely and relevant decisions, appropriate to the level of command.

Figure 6.1 – A Guide to the Tools of Battle Procedure


DIRECTION
CONSIDERATION
DECISION
EXECUTION
Battle Procedure Drill
Combat Estimate
Estimate of the Situation
Operation Planning Process
Intelligence Preparation of the Battlefield
Wargame
Decision Support Template
Targeting
Synchronization Matrix
Orders

]

DIRECTION

During the Direction stage the commander receives a mission or task and makes an initial analysis of the requirements. He can do this by reference to his task(s) and superior commander's intent or, less formally, to the situation in which he finds himself. Whatever the circumstances, this procedure is termed **Mission Analysis** and is the first step in the estimate. Mission Analysis enables a subordinate to capitalize on an evolving situation in a way that his superior would intend, and to act purposefully on changes of which his superior is not aware. Normally a subordinate is given a task or tasks which are examined in view of the overall mission and superior commanders' intentions. From this examination of the information (through Mission Analysis), the subordinate deduces his own mission. By the completion of the Direction stage, the following must have been determined:

- The time by which a decision must be made (the decision point).
- The priorities for staff work if applicable (staff planning guidance).
- The establishment of the Commander's Critical Information Requirements (see Figure 3A.1).
- Other time-critical activities may also be initiated.

CONSIDERATION

Before the commander reaches his decision, it will be necessary, at all but the lowest tactical levels, for the commander to consider the work of his staff. He must apply his own judgement both during the consideration stage in refining a number of possible options (**courses of action**), and during the Decision stage. *If time permits*, this stage will also include consultation:

- **Upwards**. The commander should talk to his superior if in any doubt as to his mission, the reason for that mission or the means available to accomplish it. The subordinate commander also has a duty to report any serious limitations of manpower or materiel which may prevent him from carrying out his mission successfully. Thus bids for additional resources or requests for clarification of details may be appropriate and do not indicate lack of confidence in the higher command. A subordinate must also keep his superior informed of his intentions—*after* reaching the decision point.

- **Sideways**. Sideways consultation takes place both externally with neighbouring formations/units and internally. A commander may consult with his advisers, usually with his COS and ACOS (Admin) at a minimum. The commander should also liaise with neighbouring commanders in accordance with the procedures for establishing liaison (see page 74).

- **Downwards**. Consultation downwards is one of the principal means by which the commander can obtain an impression of what is feasible. In this process, he must also beware of the weakening of his own resolve because of the fears or concerns of subordinates who may not be able to see the 'big picture'. As a rule, a commander should go forward to consult with subordinates where he can obtain a feel for the situation and make his own judgements. The better the climate of mutual trust that exists between superior and subordinate, the greater the degree of consultation that can occur without loss of authority.

DECISION

This stage includes the completion of the estimate with War-gaming assisting in the selection of the best Course of Action. The commander next makes the Decision to adopt a particular course of action and develops an expression of his intent and broad concept of operations. This decision now must be translated into orders and disseminated. It is at the Decision Point where the use of the tools in support of Battle Procedure shifts to those used to implement, coordinate and control that decision.

EXECUTION

Although he has made his decision, Battle Procedure is not complete until troops have been committed to battle and the mission achieved. The commander will rely on feedback from many sources as a means of control throughout the execution stage. This feedback includes communication from his superior, but particularly from his subordinates. In Mission Command, feedback is particularly important at the outset of a campaign or major operation when the outcome of a plan is uncertain. The commander will need to satisfy himself that his subordinates fully understand him, especially if he has adopted an unorthodox course of action.

REVIEW

Review is not another step in Battle Procedure, but is a commander's responsibility that must occur throughout the procedure until achievement of the mission. The commander must assure himself of the execution of the action contained in his orders, adjusted as necessary in the light of events. While the staff carries the burden of monitoring the situation, a control function, it remains very much the commander's business to review the situation against his mission and superior commander's intent. He will continue to seek the initiative as the action unfolds, keeping his focus on the enemy, exploiting mistakes and grasping opportunities. On completion of the action, the commander is responsible for recording the salient facts and assessing successes and failures in order to determine and distribute the appropriate lessons learned for the future. On operations and training this **after-action review** process must be sufficiently open to allow individuals to profit from knowledge and understanding of their own and others' mistakes.

BATTLE PROCEDURE IMPLEMENTATION

SECTION TO SUB-UNIT COMMANDERS

At the lower levels of command, battle procedure has been refined over time into a drill consisting of 15 steps. Chapter 2 discussed the required leadership attributes of this level of command. It is the section/crew; platoon/troop and sub-unit that the army depends upon for the final execution of Battle Procedure that may well have begun at the strategic level. The order and number of steps are important, as a common drill fosters uniformity and mutual understanding within the army. The steps are as follows:

- Receive Warning Order
- Conduct a Quick Map Study and Time Estimate
- Receipt of Orders
- Conduct Mission Analysis
- Issue Initial Warning Order
- Make a Detailed Time Estimate
- Conduct a Map Study and Prepare an Outline Plan
- Prepare a Reconnaissance Plan
- Conduct Reconnaissance
- Do Remainder of Estimate
- Issue a Supplementary Warning Order
- Prepare and Issue Orders
- Coordinate Activities and Requirements of Subordinates
- Supervise Deployment
- Execute the Mission

This drill is a flexible guide to preparation for battle. Time and tactical constraints will dictate the steps to abbreviate or drop for that particular cycle.

The combat estimate, for example, can be shortened to a few notes on a map. However, the first step of the estimate, Mission Analysis—the understanding of higher commander's intent—is crucial to our command philosophy of Mission Command and must be completed for each cycle of decision-making. Table 6.2 shows how the 15 step drill fits into the four stages of Battle Procedure. The table also compares the drill at the lower tactical levels with the actions of the commander who has a staff available to assist him with Battle Procedure.

COMMANDERS WITH STAFF ASSISTANCE

In the Canadian Army, Battle Procedure is 'command-led', rather than 'staff-driven'. There are exceptions of course; the COS/G3 must be prepared to conduct Mission Analysis in the event of a failure of communications. In joint or combined headquarters within NATO, a greater degree of responsibility has been accorded to the staff. As the commander is responsible for the direction of the Battle Procedure, it follows that he must be fully involved at its initial stage, and as he makes the decision, he must be involved there, too. The extent to which the commander is involved in the detailed Consideration stage between, will depend upon a number of determinants, including:

- The situation (in particular, the time available to make a decision).
- The state of training and experience of the staff.
- The level of decision-making required.
- The potential complexity of the required decision.
- The style and personality of the commander himself. The way he makes or arrives at a decision remains largely his business, commensurate with the need to utilize the general or specialist skills and experience of his staff to best advantage.

THE STAFF

The staff is responsible for completing the bulk of the estimate under the direction of the COS/G3. The staff at lower tactical levels (unit/brigade) is concerned with detailed evaluation of information and the conduct of staff checks on behalf of the commander. At the higher tactical levels and at the operational level (particularly in joint and combined operations), the staff will often be required to develop options, or possible courses of action, for the commander to compare and decide on. However, while staff officers may present the commander with courses of action, they do not make the decision.

MAJOR ACTIVITIES IN BATTLE PROCEDURE

Table 6.2 highlights the linkages in the Battle Procedure process but demonstrates that the overall 4-stage process is similar, regardless of level at which it is applied. The platoon commander performs Battle Procedure as a drill as shown in column (b). The commander at higher level headquarters, such as 1st Canadian Division, has responsibilities as shown in column (c). He also has a staff and many more tools integrated into the procedure as shown at Column (d).

STAGE IN PROCESS	**MAJOR ACTIVITIES**		
	Commander Alone	**Headquarters**	
		Commander	**Staff**
(a)	(b)	(c)	(d)
1.Direction	a. Receive Wng O. b. Quick map study and time estimate. c. Receive Orders. d. Conduct Mission Analysis. e. Issue initial Wng O.	a. Receive Wng O. b. Quick map study and time estimate. c. Receive Mission (Orders or Directive). d. Conduct Mission Analysis. e. Determine Decision Point. f. Issue Planning Guidance incl restated Mission and Critical Information Reqr.	a. Assist in the commander's Mission Analysis (according to the commander's wishes).
2. Consideration	a. *Make a detailed time estimate.* b. Conduct map study and prepare outline plan. c. *Prepare a recce plan.* d. *Conduct recce.* e. *Complete estimate.*	a. Consultation with subordinates, superior HQ, flanking formations and staff.	a. *Re-direct ongoing IPB process.* b. Issue Planning Directive. c. Initial Wng O d. *Courses of action development and analysis.* e. *War-game courses of action.*
3.Decision	a. Issue a Supplementary Wng O if reqr. b. Prepare and Issue Orders.	a. Decide on course of action. b. War-game course of action. c. Fully develop concept of operations for orders. d. *Back-brief higher commander.* e. *Approve or Issue (if Oral) Orders.*	a. Conduct decision briefing. b. Issue Supplementary Wng O. c. War-game final course of action. d. Complete the decide function of the targeting process. e. *Complete plans/ orders.*

STAGE IN PROCESS	MAJOR ACTIVITIES		
	Commander Alone	Headquarters	
		Commander	Staff
(a)	(b)	(c)	(d)
4.Execution	a. Coordinate activities and requirements of subordinates. b. Supervise deployment. c. Execute Mission d. Plan for next mission.	a. *Coordinate activities and requirements of subordinates.* b. *Planning guidance for branches and sequels.*	a. *Review and revise plans/orders as applicable.* b. *Plan branches and sequels.* c. Execute the plan and adapt as required.

Table 6.2 – The Steps and Major Activities in Battle Procedure

Notes:

1. Time compressible activities are *italicized*. For example, Fragmentary Orders may be issued instead of formal Operation Orders.

2. One of the keys to faster decision-action cycles is the degree of concurrent activity across all levels of command accomplished during this process.

3. This is not an exhaustive listing of every possible command/staff activity. For example, the Support Services preparation for battle (other than their participation in staff planning) is not included.

4. Detailed process flowcharts are a headquarters SOP responsibility that should be locally developed and refined during operations and exercises.

THE TOOLS OF BATTLE PROCEDURE

A number of tools are available to assist the commander and staff with Battle Procedure. This listing is not exhaustive, but is intended as a guide to the more common tools currently available. The future Land Force Command System is also included, as the introduction of this system will have tremendous implications for the conduct of Battle Procedure. All commanders must be trained in its use as well as becoming familiar with its strengths and limitations. As is evident at **Figure 6-2**, a number of these tools are intended for use prior to the commander making his Decision, others are designed to assist in the monitoring and coordination of Battle Procedure during the Execution stage.

BRAIN-STORMING

Brain-storming is a creative thinking technique which encourages members of a team or group to exchange their ideas in an open and informal manner. The brainstorming session begins with the team leader describing to the participating members the problem under analysis and encouraging them to be as imaginative and creative as possible in formulating their ideas. Many of the resulting ideas will prove of little value. Some will prove to be superficial, others too imaginative to be workable. However, those that remain are often very helpful. Brainstorming is often useful before the start of more formal decision-making processes, such as the estimate. Brain-storming can also be used as a command tool to train the staff to look at problems from different angles, to seek original solutions by questioning conventional wisdom and to recognize the potential gains and costs associated with them.

THE ESTIMATE

The principal tool in command and staff decision-making is the estimate. Following his mission analysis, the commander, supported by his staff, evaluates all relevant factors, leading to an assessment of tasks and consideration of possible courses of action. The commander then makes his decision, selecting one of the courses of action (or a modification). Following his decision, detailed planning is completed by the staff, which leads to a directive or operation order. At any stage in Battle Procedure, the mission or plan can be reviewed using mission analysis. For a full description, see the estimate and combat estimate at pages 119 and 141 respectively.

THE ESTIMATE

Trigger:

1. Task or Mission Received.
2. Change in situation.
3. Commander Direction.
4. Contingency Planning.

Product:

Commander's Decision.

THE OPERATION PLANNING PROCESS

The individual estimate of the situation becomes less applicable at higher levels of command. Corps, division and, to a certain extent, brigade commanders would have difficulty in completing an estimate on their own, given the information and process tools available. Better and more timely results can be achieved utilizing a collective effort.

The Operation Planning Process is simply a collective estimate of the situation that synchronizes the efforts of the staff. It is a logical sequence of collective reasoning leading to the best solution within the available planning time. The commander, assisted by his staff, analyzes a situation, develops and decides on a plan of action, issues orders and prepares for further contingencies. The Operation Planning Process is continuous and dynamic, involving concurrent activity and interaction between the commander, the staff and subordinate commanders. The process integrates other tools such as Targeting, Intelligence Preparation of the Battlefield and war-gaming, which in turn generate products such as the decision support template, the synchronization matrix and the attack guidance matrix. Further details of the Operation Planning Process are contained at Annex C to this chapter.

MAIN EFFORT

The Canadian Army has understood the value of establishing a point of Main Effort for many years. The idea has been expressed in the Principles of War as Concentration of Force, Economy of Effort and Flexibility. The German Army's concept of, *schwerpunkt,* or 'point of main effort', has been adopted by the Canadian Army for some time. The term and its German definition have been used in Canadian doctrine to express this classic manoeuvrist concept.[35] Main Effort is defined as, ***a concentration of forces or means, in a particular area, where a commander seeks to bring about a decision***.[36] This definition should be placed in the context of the commander's concept of operations, which describes how the battle will unfold, often in terms of various phases. The designation of a main effort will ensure that subordinates focus on the key element of each phase, and provides them with guidance throughout the execution of the mission. It is a crucial tool for the attainment of the commander's intent.

Establishing The Main Effort The decision on where to establish the Main Effort will depend upon the higher commander's intent, the commander's mission analysis, the relative strengths of his forces and those of the enemy, and the intelligence available. The commander has six main methods, which may be used in combination, to give substance to his main effort:

- Boundary narrowing to concentrate force, economy of effort elsewhere.
- Grouping extra combat power on the Main Effort.
- Allocation of priority for Support Arms.
- Allocation of priority for sustainment.
- Use of second echelon forces and reserves.
- Sequencing of deep, close and rear operations.

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[35] For example, 21st Army Group (including 1st Canadian Army) publication *The Armoured Division in Battle* of December 1944 gives 'Schwerpunkt' as one of the basic points of any operation.

[36] ATP-35(B). The word 'area' is used in a broad sense to include activity, for example the defeat of a particular enemy group.

INTELLIGENCE PREPARATION OF THE BATTLEFIELD (IPB)

This process complements the estimate and is integral to Battle Procedure at all levels of command down to and including battalion. The process provides a methodology for accelerating decision-making, and for seizing or retaining the initiative by predicting enemy actions and developing contingencies to deal with these potential threats. IPB allows commanders to identify critical decision points for the exercise of contingencies and to determine how best to focus reconnaissance, intelligence, surveillance and target acquisition (RISTA) assets. In contrast to a written intelligence estimate, IPB uses a graphical approach to present information. This makes it easier for the staff to update, and for commanders and staff to assimilate and to identify the essential decision points. IPB is a dynamic process in that data can be added or adjusted at any time before or during combat. IPB is explained further at **Figure 6-3**while its relation to the estimate process is depicted graphically at page 121.

IPB

Trigger:

1. Task or Mission Received.
2. Change in situation.
3. Commander Direction.

Products:

1. Event Template used to develop the collection and RISTA plans. Also used after Wartime by G3 Staff to prepare the Decision Support Template and Synchronization Matrix.
2. High Value Target List (HVTL) for use in Wartime and ongoing development of High Payoff Target List (HPTL) and the Attack Guidance Matrix.

INTELLIGENCE PREPARATION OF THE BATTLEFIELD

IPB is a systematic and continuous process by which enemy capabilities, vulnerabilities and probable courses of action (COAs) in a specific geographic area are determined.

Step 1 – Defining the Battlefield. The operations staff defines the battlefield by designating the width, depth, height and time dimension of the formation's area of operations. The commander then identifies the area of interest, the area of intelligence interest, and the area of influence. At brigade level and above, or when considered appropriate by a commander, the division of responsibilities for deep and rear operations is identified. Defining the battlefield begins the database development process. Gaps in current intelligence holdings with respect to the battlefield environment are identified as quickly as possible and translated into information requirements.

Step 2 – Describing the Battlefield. During this step, the effects of the environment on the conduct of operations and the general capabilities of each force are evaluated. This assessment of the battlefield includes an analysis of terrain and weather, and should include an analysis of political, media, local population, civilian infrastructure and other demographic factors in the area of operations. If a Terrain Analysis section is not available to support the G2, the intelligence staff can assess the effects of ground and weather on operations. Weather affects air and aviation support, surveillance and target acquisition systems, communications, equipment performance, mobility, and the ability of the soldier to fight. Accurate weather predictions are often crucial to success. This step results in two overlays: the first shows **F**eatures, **L**anes, **O**bjectives and **C**analizing ground; the second shows objectives, avenues of **A**pproach, **R**ating of approaches, **K**ey terrain and vital ground (FLOCARK if not done by a Terrain Analysis section).

Step 3 – Evaluating the Threat. The intelligence staff analyzes available information and intelligence to determine how the threat normally organizes for combat and conducts operations under circumstances similar to those presently encountered. When confronting a well-known adversary, historical databases and well-developed enemy models and templates are usually available to guide analysis work. When operating against a new or less well-known opponent, the requirement to build and develop intelligence databases and enemy models normally exists. This is a labour-intensive effort. In low-intensity conflict operations, belligerents may have poorly defined doctrine and employ random tactics, making the intelligence effort more difficult. The products of this step are doctrinal templates and High Value Target Lists.

Step 4 – Determining Threat COAs. To determine threat COAs, G2 integrates the results of the previous steps into a meaningful conclusion. Given what the threat normally prefers to do and effects of the environment in which they are operating, G2 develops models for use during the Operation Planning Process that depict the enemy's likely objectives and COAs. This step produces Situation Templates (single COA overlays), an Event Template (multiple COA overlay) and an Event Matrix (Event Template as matrix with supporting indicators).

Figure 6-3 – Intelligence Preparation of the Battlefield

TARGETING

Improving technology (primarily precision guided munitions) has allowed effective attack of important enemy targets beyond the immediate area of close operations. The targeting process assists commanders by determining which targets are to be acquired and attacked, when they are to be acquired and attacked, and what is required to defeat the target. Targeting is complementary to fire planning. Whereas fire planning focuses primarily on close support of committed forces, targeting provides a method for the execution of attrition, interdiction and counter-battery functions in accordance with the priority established by the commander. Targeting is a top-down process coordinated by the operations staff at all levels.

OPERATIONAL RESEARCH (OR)

This is the application of scientific methods to assist in Battle Procedure. OR can be used as part of a deliberate planning process before and during operations. It is particularly useful when applied to problems that lend themselves to mathematical measurement. Important applications include the determination of force ratios (OR techniques allow for an assessment of qualitative differences) and the evaluation of plans. Historically, OR has also been used with success to recommend tactical or operational techniques for exploiting enemy vulnerabilities or protecting our own, particularly in circumstances where an opponent has no previously recognized doctrine.[37] OR also has an important role in the production and validation of data used in war-gaming and planning.

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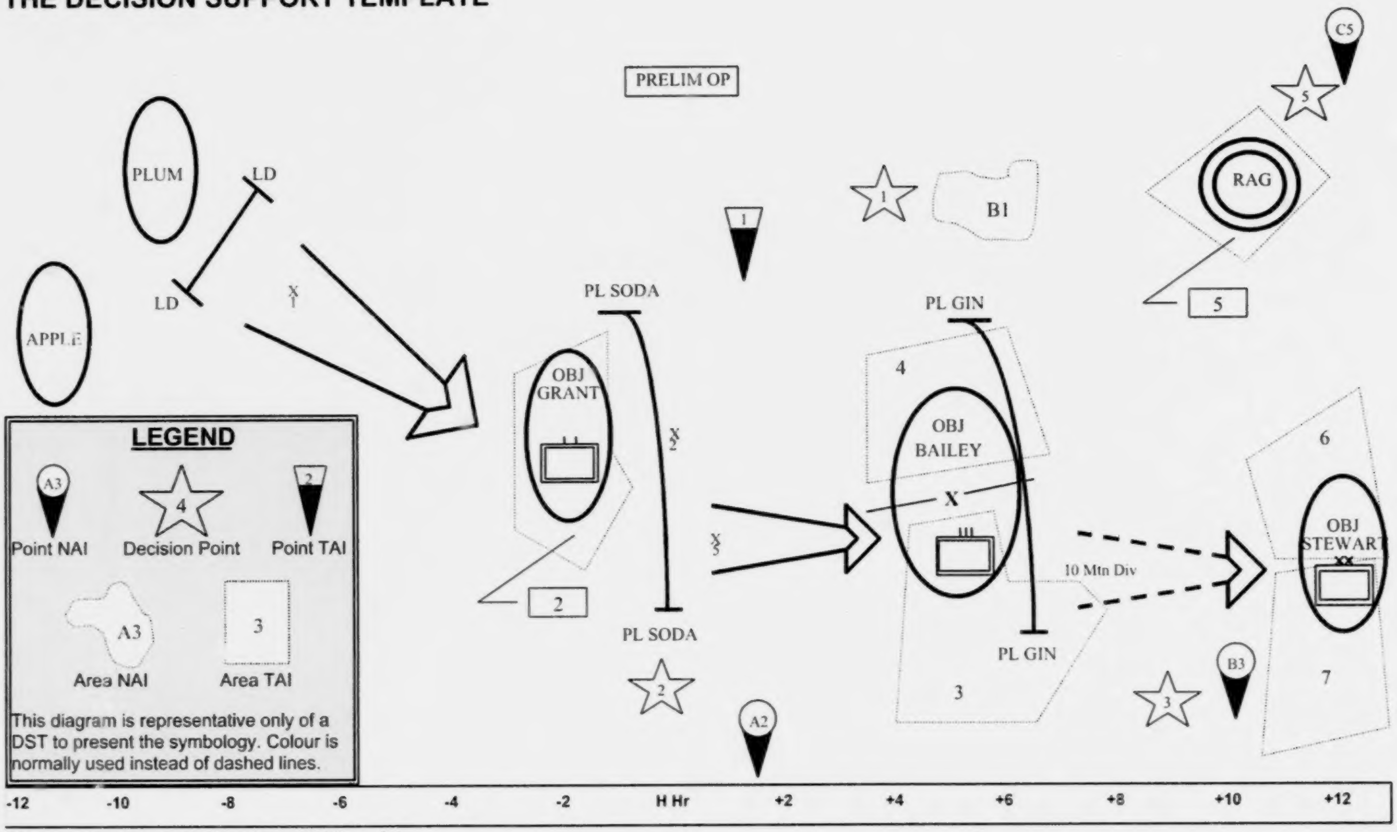
[37] OR elements deployed to Bosnia in 1995 as UNPROFOR began planning a possible fighting withdrawal through hostile territory. They assisted in a Wargame of possible courses of action for CANBAT 2, contributing extremely valuable lessons learned where rehearsal was not practicable. Technology will shortly allow their 'long distance' participation in this type of Wargame activity (as done by the U.S. Army during the Gulf War).

THE DECISION SUPPORT TEMPLATE


PRELIM OP
PLUM
APPLE
LD
LD
X 1
C5
5
RAG
5
1
B1
1
PL SODA
OBJ GRANT
X 2
2
PL SODA
2
X 5
A2
PL GIN
4
OBJ BAILEY
X
3
PL GIN
10 Mtn Div
6
OBJ STEWART
XX
7
B3
3
LEGEND
A3
Point NAI
4
Decision Point
2
Point TAI
A3
Area NAI
3
Area TAI
-12
-10
-8
-6
-4
-2
H Hr
+2
+4
+6
+8
+10
+12

This diagram is representative only of a DST to present the symbology. Colour is normally used instead of dashed lines.

Figure 6.4 – The Decision Support Template

Notes:

- This template is normally produced as an overlay.
- Decision Support Template (DST); Named Area of Interest (NAI); Taget Area of Interest (TAI)

SAMPLE SYNCHRONIZATION MATRIX

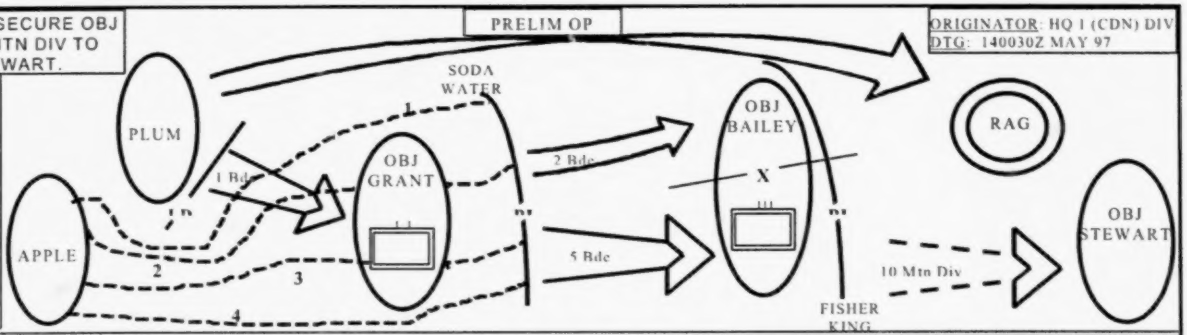
MSN: ON ORDER, 1 DIV ATTACKS TO SECURE OBJ BAILEY IN ORDER TO ALLOW 10 (US) MTN DIV TO COMPLETE DEFEAT OF EN IN OBJ STEWART.

CONCEPT OF OP:

Div Comd's intent is to attack to defeat en in OBJ BAILEY, secure PL FISHER GIN and so set conditions for 10 (US) MTN DIV attack before en res react decisively.

On completion of prelim op by 1BDE to secure PL SODA WATER, 2BDE and 5BDE attack to seize OBJ BAILEY in close coordination with Div deep ops to isolate and attack en in OBJs GRANT, BAILEY and STEWART and protect open flanks.

Initial ME 1BDE to secure OBJ GRANT.



ORIGINATOR: HQ 1 (CDN) DIV
DTG: 140030Z MAY 97

TIME (Estimated)	-12	-10	-8	-6	-4	-2	H HOUR	+2	+4	+6	+8	+10	+12
ENEMY ACTION		Deep Ops Recce		Fight in Secur Zone	Defend Main Posn		CB Fire		Fight in Secur Zone	Defend Main Posn	CB Fire		
OWN DECISION PTS				Orders to Move to 2 and 5 Bdes		Launch Avn Attack				Order Deep Op to Sp 10 Mtn Div Attack			
MANOEUVRE – DEEP OPS		Air and Arty Attack GRANT		Overwatch Flanks		Air and Arty Attack BAILEY	Altn Atk RAG		Air and Arty Attack STEWART		Avn Attack in Sp of 10 Mtn Div		
MANOEUVRE – 1 BDE OPS		Assy Area PLUM	Cross LD		Secure OBJ GRANT		Div Res				Secure 10 Mtn Div LD		
MANOEUVRE – 2 BDE OPS		Assy Area APPLE			Mov on Routes 1 + 2		Cross LD			Secure OBJ BAILEY			
MANOEUVRE – 5 BDE OPS		Assy Area APPLE			Mov on Routes 3 + 4		Cross LD			Secure OBJ BAILEY	Div Res		
MANOEUVRE – REAR OPS		Assy Area Secur			Risk as Bdes Prep Atk			Take on Security of GRANT					
FIREPOWER (Arty, Air)		Prep FWD Posn/Ammo	Attack OBJ GRANT		Sp 1 Bde Atk		Attack RAG fire SEAD			Attack RAG	SEAD		
INFORMATION OPERATIONS		Obj STEWART	Loc RAG		Obj BAILEY		JAM RAG	Prep 10 Mtn Div Atk			Protect 10 Mtn Div		Sp 10 Mtn Atk on STEWART
PROTECTION		Route Secur AD protect Assy		Clear Routes 1-4	AD Protect Bde Movs		Sp to 2 + 5 Bdes		Maint on 10 Mtn MSR		10 Mtn Div Psg of Lines		Mob Sp to Corps Tps
SUSTAINMENT		Replen Div			Refuel 2 + 5 Bdes	Refuel 1 Bde				Resup Bdes on OBJ BAILEY		Refuel 10 Mtn Div	
COMMAND			Tac HQ with 1 Bde	Tac Watch Moves		MAIN to GRANT	Tac FWD with 5 Bde		Tac Watch Moves		MAIN HQ BAILEY	Tac FWD to 10 Mtn MAIN	
REMARKS									← Sp to 10 Mtn Div Op →				

Table 6.5 – Sample Synchronization Matrix

THE ATTACK GUIDANCE MATRIX[1]

TARGET DESCRIPTION	SOURCE	ACCURACY	WHEN TO ATTACK[2]	HOW TO ATTACK	POST ATTACK ASSESSMENT	REMARKS
151 Indep Tk Bn	G2, EW	200m	P	MLRS, Regt, Avn	EW	G3 coord before engage.

Table 6.6 – The Attack Guidance Matrix

Notes:

1. Accuracy in accordance with CFP 306(2).
2. When to attack—
    - I – Immediate. Interrupt other attacks.
    - A – As required. Attack as assets become aval IAW the High Payoff Target List.
    - P – Plan. Do not engage now, for future use. Incl a time limit.

///

TERRAIN ANALYSIS (TERA)

TERA

Trigger:

1. IPB Step 2.
2. Commander/Staff Direction.

Products:

1. Terrain Description in IPB.
2. Visual aids to assist Situational Awareness (i.e. 3D).
3. Reconnaissance Aids (i.e. Inter-visibility studies).

Terrain analysis is the process of analyzing geographical information, as available, to determine the effect of natural and man-made features on military operations (in concert with the weather). The aim of terrain analysis is to reduce the amount of time required for field reconnaissance, but not replace it, therefore speeding up Battle Procedure. It has become increasingly apparent that terrain information has specific relevance, not just to manoeuvre, but to all six combat functions. There are three approaches to answering terrain based questions:

- **The environment/terrain study approach**. Assessments are made to respond to specific questions. For example, terrain analysis may develop an inter-country border study, or an analysis of a geographic area of operations, the product being in text format with small-scale graphics.
- **The multi-purpose database approach**. This creates neutral factor overlays which have to be interrogated by terrain analysts in order to answer any one of a multitude of terrain related questions. A typical product of this approach would be an overlay describing, a cross-country mobility assessment for one type of vehicle.
- **Intelligence Preparation of the Battlefield**. TERA is useful in assisting with the second step of IPB—Describe the Battlefield.

Critical to the entire TERA process is the existence of an accurate and up to date terrain analysis database of selected terrain information produced before the intended deployment. These databases are maintained by TERA sections and updated immediately before a deployment.[38]

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[38] Terrain Analysis is a new tool for use at the tactical level, therefore an example of its usefulness would be appropriate. In the Fall 1994, CANBAT 2 in Visoko, Bosnia-Herzegovina was tasked at short notice by LGen M. Rose, B-H Comd to find a suitable operations area for a battalion of HIP helicopters. The HIPS were to be used for the forced re-supply of the Muslim enclaves of Zepa and Gorazde in Serbian Bosnia. The parameters were year-round access, sufficient ground-pressure strength and protection from observed artillery fire. The TERA section identified three possible sites in an area of 900 square kilometres within three hours. A recce was conducted by two sergeants who confirmed a defensible site. Within six hours of tasking, a written report

WARGAMING

War-gaming is an interactive simulation of combat that is crucial to decision-making. It ties together the entire staff effort on the Estimate Process and results in critical command products and tools to assist in the upcoming operation. It can range from informal discussions around a map to the use of sophisticated computer software. Computer modelling is especially useful in quantifying the problems of time and space and illustrating the interaction between air and ground weapon systems. As with all simulations, however, the results of war-gaming are predictive. There is no guarantee that a particular outcome will occur. War-gaming can be used before operations to train commanders and staffs and to allow rehearsal of particular aspects of the operation. On operations, war-gaming is a conscious attempt to visualize the ebb and flow of a campaign, major operation or battle. By war-gaming, commanders and staffs attempt to foresee the dynamics of action, reaction and possible counteraction of battle. War-gaming can be employed to determine enemy courses of action and to identify, and quantify objectively, possible responses. Proposed courses of action can be tested given friendly force strengths and dispositions, enemy capabilities and deduced possible courses of action in a set area of operations. In this way, war-gaming can assist in the commander's decision-making and in the development of subsequent plans.

A suggested process is:

- Gather the tools (enemy and friendly COA, IPB products)
- List all friendly forces (changes to planning directive only)
- List the assumptions delivered during mission analysis (changes to planning directive only)
- List known critical events and decision points
- Select a war game method
- Select a technique to record and display the results (normally the Synchronization Matrix)
- Wartime and assess the results

BRIEFINGS

A number of briefings can be held to assist the commander, his staff and subordinate commanders in the development of their plans. Whatever the objectives of a briefing, they should benefit the attendees, not hinder their completion of tasks (as in rehearsals for briefings). In addition, a briefing should

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including digital photographs of the selected site was transmitted to the Headquarters.

never develop into a conference; the commander must never permit decision by committee. Briefings should not be confused with orders; while briefings are often employed as a means to decision-making, orders are a means of transmitting decisions to subordinates.

The Information Briefing. An information briefing can be held regularly during the Operation Planning Process or at any stage during the estimate process where information needs exchanging. A decision is not normally expected at an information briefing, but one could be made as a result of the information presented. Commanders do not normally attend information briefings, dependant upon availability, due to their priorities outside of the headquarters. They should be updated via a normal situation brief according to their schedule—not the staffs'.

The Decision Briefing. A decision briefing is a scheduled briefing to the commander in order to present him with the results of staffwork initiated during the Direction stage. A decision is expected at the conclusion of this briefing. Alternatively, to determine *not to make a decision yet* is a legitimate outcome. Depending on the level of command and the situation, the staff may propose courses of action to the commander within his overall mission and intent. The decision briefing is not a conference—members of the staff present the salient points of their staff work only. Any discussion is the prerogative of the commander.

The Back-Brief. The Back-Brief is an opportunity for subordinate commanders to brief their superior commander and fellow commanders on their own plans. Thus, it follows the superior commander's decision and orders. Where circumstances permit, this is done collectively to enable a number of subordinates to meet in the presence of the commander and to discuss forthcoming operations. The object is thus not to seek approval but to increase mutual knowledge in, and understanding of, each other's plans. Often Back-Briefs can be developed by war-gaming possible scenarios. While a Back-Brief again must not degenerate into a conference, it provides a useful forum for commanders and principal subordinates to discuss future operations in a less formal atmosphere than an orders group.

LAND FORCE COMMAND SYSTEM

Current research into communication and information systems indicates that there is considerable potential to harness advanced information technology in the execution of command.[39] The objective is to improve both the timeliness and accuracy in the collection, processing, analysis and dissemination of information. Duplication of effort and errors in the re-transmission of information up and down the chain of command can be minimized through technological means. The creation of an automatically updated **relevant common picture** of the battlefield will lessen these burdens. The Land Force Command System comprises hardware in the form of computers; software developed to assist the decision-making process and provide feedback in the form of control once operations have commenced; and networking/communications to allow sharing of information. Once fully implemented, the Land Force Command System will give Canadian Army formations and units the ability to interact fully with allied forces using similar systems. Significant improvements to current methods will include:

- A reduction in the 'fog of war' as a result of better situational awareness.[40] For example, regular positioning sensor inputs will allow quicker and more accurate unit location states to be available. As well, the workstation interface will be graphical in nature. The staff officer will be able to work on a digital map with whatever overlay (tactical situation, targeting, terrain analysis) desired.

- A reduction in duplicated effort through the vertical chain of headquarters. For example, the G2 staff at all headquarters will share information immediately thus allowing a team approach to the development of the Intelligence Preparation of the Battlefield. G2 staff at tactical headquarters should find more opportunity to focus on their local situation and their commander's priorities.

- A better coordination of staff effort within a headquarters. The COS/G3 will have assistance in the control of the staff and tasks through the means of 'project management'-type software on his workstation. Assessing and re-arranging workloads to achieve concurrent activity will be easier.

- Easier, more accurate staff checks through the utilization of current information databases. For example, sustainment calculations will be made using actual numbers of soldiers and equipments by type.

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[39] This is increasingly being termed 'digitization' of command.

[40] Quite simply, if you can answer the following questions accurately: "*Where am I?*" "*Where are the good guys?*" "*Where are the bad guys and what are they doing?*" "*What is that?*" and "*What am I supposed to be doing?*" Then you have Situational Awareness.

- Easier planning of administrative direction. Road, rail, air and sea movement tables will be available from the database requiring only the input of current parameters. Operational planning for obstacle crossing, whether bridge, ferry, raft or assault boats, will benefit from the same software.

The Land Force Command System will also pose challenges to leadership and staff including:

- **Development of Software**. Software development is risky and expensive. The Land Force Command System will be unlike other projects in that it will require significant ongoing contractual development. User-required software improvements will place a premium on the interaction between the user and the developer.

- **Training**. There will be a significant training requirement as the army moves to a new system supporting command. Senior officers in particular will have to make a determined effort to become comfortable with the Land Force Command System or risk losing their ability to control ongoing operational developments.

- **Interference with the Chain of Command**. Information will be much more widely and rapidly available. There will be a serious temptation on the part of senior commanders and staff to become involved in the immediate tactical battle. This temptation will be extremely dangerous as it contravenes the fundamentals of Mission Command. It will result not only in the complete loss of initiative by commanders on the ground, but also in the neglect of the proper duty.

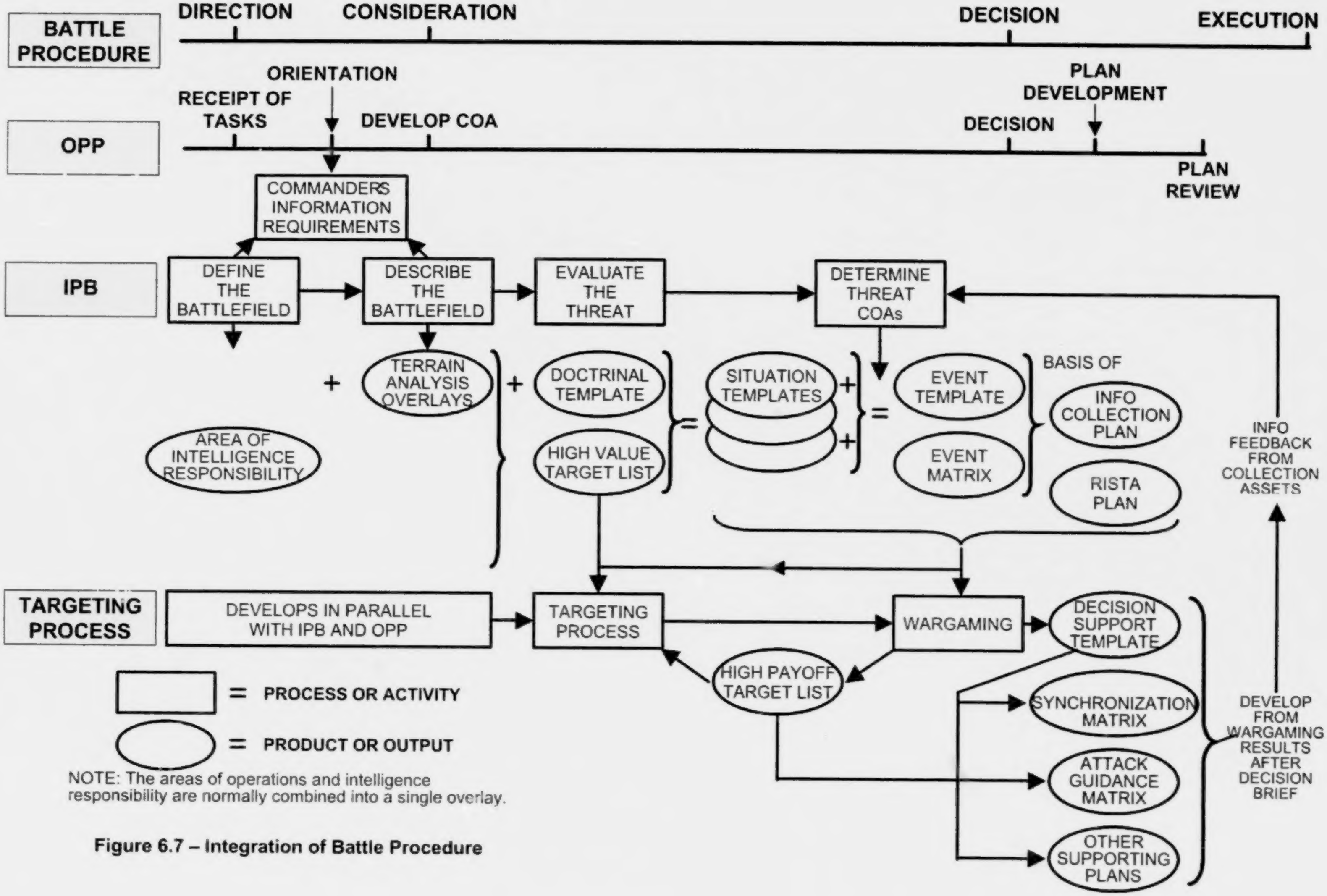
- **Addiction to Automation**. There will be tremendous reliance on 'perfect communications'. Commanders and staffs employing advanced information technology must be so trained and equipped that they are able to revert quickly to backup methods if required.

SUMMARY

Once operations begin, the commander and staff at the operational and tactical levels are concerned primarily with fighting, and providing administrative support to sustain operations. Battle Procedure is not a separate activity, but becomes wholly integrated into the continuity of operations: command and staff efforts will be shared between fighting the current operation, while planning for the next. In most operational situations, Battle Procedure will be compressed due to time constraints. Once the overall process is practised and understood, commanders have the experience and flexibility to adjust the process to meet their immediate requirement.

Battle Procedure is a cyclic process without a final product other than ***winning***. Chapter 6 was introduced with a simplistic view, at **Figure 6-1,** of the relation of the tools of Battle Procedure to the Decision-Action Cycle. The chapter is concluded by another diagram at Figure 6.7, which provides a similar view, but includes the tools and products described throughout Chapter 6.

INTEGRATION OF BATTLE PROCEDURE


BATTLE PROCEDURE
DIRECTION
CONSIDERATION
DECISION
EXECUTION
OPP
ORIENTATION
RECEIPT OF TASKS
DEVELOP COA
DECISION
PLAN DEVELOPMENT
PLAN REVIEW
COMMANDERS INFORMATION REQUIREMENTS
IPB
DEFINE THE BATTLEFIELD
DESCRIBE THE BATTLEFIELD
EVALUATE THE THREAT
DETERMINE THREAT COAs
+
TERRAIN ANALYSIS OVERLAYS
AREA OF INTELLIGENCE RESPONSIBILITY
+
DOCTRINAL TEMPLATE
HIGH VALUE TARGET LIST
=
SITUATION TEMPLATES
+
+
=
EVENT TEMPLATE
EVENT MATRIX
BASIS OF
INFO COLLECTION PLAN
RISTA PLAN
INFO FEEDBACK FROM COLLECTION ASSETS
TARGETING PROCESS
DEVELOPS IN PARALLEL WITH IPB AND OPP
TARGETING PROCESS
WARGAMING
HIGH PAYOFF TARGET LIST
DECISION SUPPORT TEMPLATE
SYNCHRONIZATION MATRIX
ATTACK GUIDANCE MATRIX
OTHER SUPPORTING PLANS
DEVELOP FROM WARGAMING RESULTS AFTER DECISION BRIEF
= PROCESS OR ACTIVITY
= PRODUCT OR OUTPUT

NOTE: The areas of operations and intelligence responsibility are normally combined into a single overlay.

Figure 6.7 – Integration of Battle Procedure

CHAPTER 6 – ANNEX A

THE ESTIMATE OF THE SITUATION

DEFINITION

The estimate of the situation (the estimate) is the orderly analysis of a problem leading to a reasoned solution. The commander and/or staff officer(s) consider what must be done, together with the circumstances affecting how it is to be done, in order to arrive at a sound course of action. As the situation changes, the mission and relevant factors are re-evaluated in a logical manner. The estimate process is a continuous cycle, which generates new courses of action and plans as circumstances develop.

USEFULNESS

There is, of course, concern regarding the value of trying to impose an 'orderly' process in the midst of a chaotic situation. The estimate is a flexible tool that can vary in format from a commander's mental process, to a few notes jotted on paper, to a complete study of possible branches and sequels resulting in a contingency plan. Most importantly, the process clears the commander's mind of extraneous detail and allows him to focus on that which is truly important to the accomplishment of his mission.

Numerous examples in recent history are illustrative of the benefits to the commander of this reasoning exercise. Eric von Manstein's written Appreciation of the Situation at Stalingrad[41] on 9 December 1942, while faced with 182 enemy formations (including 97 Divisions), is a classic. The tasking of Colonel Erulin, the Commanding Officer of the French 2nd Regiment (Airborne) of the Foreign Legion, with an airborne assault on a few hours notice from Corsica resulted in a particularly memorable estimate. His objective — to rescue European civilian hostages in the city of Kolwezi during the Zaire crisis of May 1978.[42] His estimate notes included the following comments —

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[41] Eric von Manstein, *Lost Victories*, Edited and Translated by Anthony G. Powell, London: Methuen, 1958. Appendix II.

[42] For an account of this action, see *Infantry* Volume 69, Number 6, Nov/Dec 1979.

Owing to such time constraints, I had to run a real race in order:

- to evaluate the situation, a rather difficult task in the absence or scarcity of any environment or target intelligence.
- to scrutinize the objective area which was easier to do, thanks to excellent existing small-scale maps.
- to think about the implications of my mission, the essence of which was:
  a. to rescue the Europeans.
  b. to restore security within the city.
  c. to maintain law and order in the area.

The value of prepared contingency plans was aptly highlighted by General George Patton's ability to switch Third Army's Main Effort North and launch a three division attack to the encircled Bastogne within 48 hours on 22 December 1944.[43] He was able to deliver this response due to his own foresight and prior direction to his COS to complete the staff estimate for this possible mission.

Given such an essential tool of command, the teaching of the estimate process is imperative at every stage in career development. An officer's ability to use and participate in the estimate process is one indication of suitability for higher command.

FORMAT

The Canadian Army has identified three distinct forms of the Estimate. The commander working alone will almost invariably use a process of jotting down a few notes to focus the problem. This abbreviated estimate is termed the 'Combat Estimate' and is further discussed at page 157. The second form, or full estimate can, be called the 'Formal Estimate' or just the 'Estimate'. The commander with or without staff assistance completes a more formal process that may or may not be in written form. Once the process involves the commander and a collective staff effort, the term 'Operation Planning Process' is used to describe and manage the procedure (as explained at the beginning of this chapter). The formal estimate is explained below and is shown in a tabular layout at the end of this Annex. While this publication concentrates on the fundamentals concerned and sets out the sequence of factors to be considered to ensure uniformity, the detailed manner in which an estimate is conducted should be determined by the local commander and staff.

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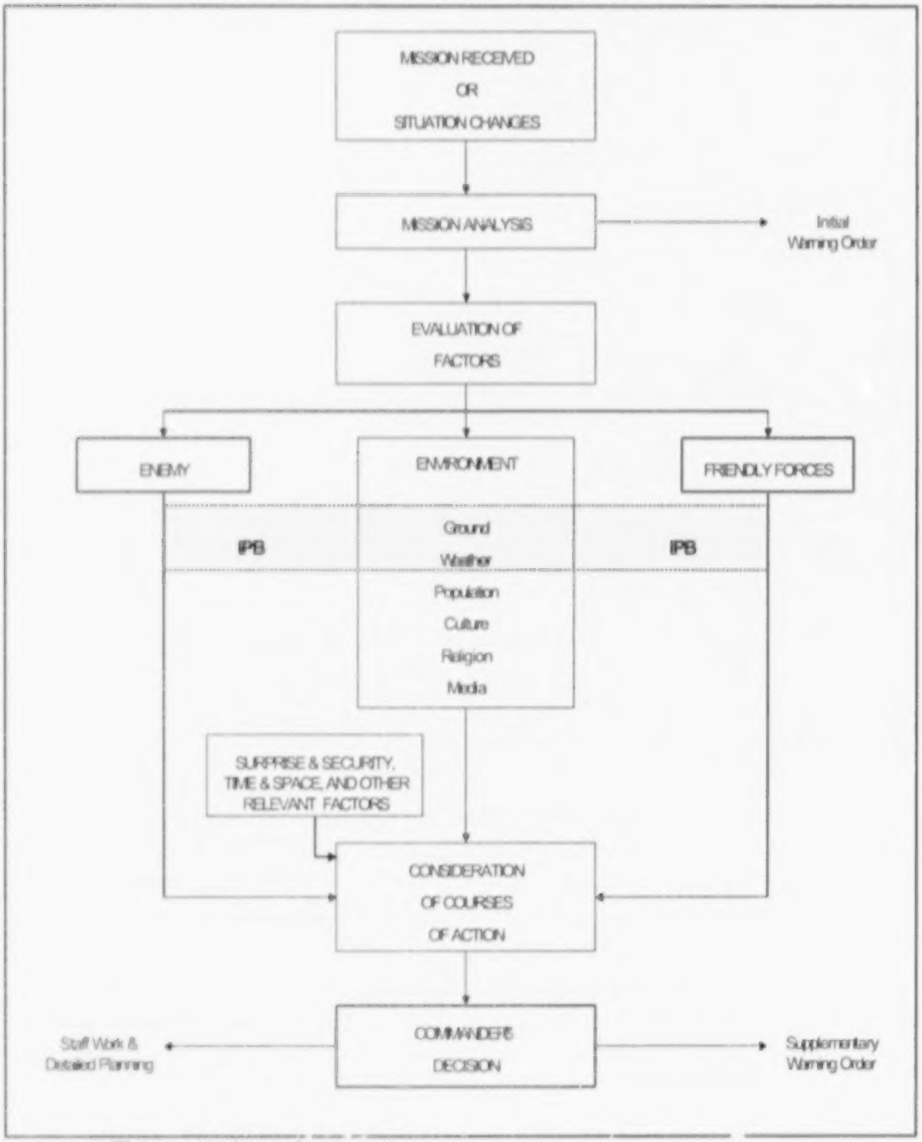
[43] Martin Blumenson, *The Patton Papers 1940-1945*, Boston: Houghton Mifflin, 1972, Chapter 33.

Figure 6A.1 – The Estimate Process With IPB

Notes:

- This process applies to all staff branches (G1-G6).
- Information from outside agencies can be fed in at any time.


MISSION RECEIVED
OR
SITUATION CHANGES
MISSION ANALYSIS
Initial Warning Order
EVALUATION OF FACTORS
ENEMY
ENVIRONMENT
FRIENDLY FORCES
IPB
Ground
Weather
IPB
Population
Culture
Religion
Media
SURPRISE & SECURITY, TIME & SPACE, AND OTHER RELEVANT FACTORS
CONSIDERATION OF COURSES OF ACTION
Staff Work & Detailed Planning
COMMANDER'S DECISION
Supplementary Warning Order

- The process is continuous.
- In operations other than war, belligerent parties may be evaluated rather than 'Enemy.' IPB may extend to Population, Culture and Religion.

Consistent with the fundamentals of Mission Command, a subordinate commander is directed by his superior as to what effect he is to achieve. At the operational level, the superior commander's intentions are expressed in a **Statement of the Commander's Intent** (*what needs to be achieved in terms of the desired end-state for a campaign or major operation*). This is normally refined in a **Concept of Operations**[44] (*how the level of command will achieve the desired end-state*). At the tactical level, the superior commander's concept of operations should include both his intent and his design for operations. At all levels, stating the commander's intent allows subordinates to exercise initiative, but in a way that will be in accordance with the commander's aim. The estimate process helps the subordinate commander at any level then decide how he will achieve the desired effect. The four principal parts of the estimate process are:

- **Part 1 – Mission Analysis**. This is a logical process for extracting and deducing from a superior's orders the tasks necessary to fulfil a mission. It places in context what effect is to be achieved in the overall design for operations and results in the commander's own mission statement. The commander establishes what constraints apply, and determines, as the campaign, major operation, battle or engagement progresses, whether further decisions are required. As such, it is a dynamic process, which 'triggers', and then regulates, the remainder of the estimate. It is continued thereafter as the situation and the mission are reviewed.
- **Part 2 – Evaluation of Factors**. The factors that affect the tasks are then considered. The following are usual: **Enemy, Environment** (including Ground and Weather), **Friendly Forces** (including Support Services), **Surprise** and **Security**, and **Time and Space**. Any further relevant factors are then considered. In operations other than war, for example, political factors may be particularly important. Deductions will begin to reinforce some tasks; others may be eliminated because they are not vital to the mission. A list of tasks that should be completed in order to fulfil the mission will emerge from this evaluation of factors.
- **Part 3 – Consideration of Courses of Action (COA)**. The next stage is to identify broad COA based on the identified tasks. For each COA, the advantages and disadvantages in relation to the

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[44] For a more detailed explanation of Intent and Concept of Operations, see page 34.

mission are considered in order to establish combat power required and risks involved. The commander's decision then follows.

- **Part 4 – The Commander's Decision** . The Decision must be the logical result of the Estimate. With it the commander decides on (or develops) one of the possible COA, having taken into account the advantages and risk of each COA in comparison with the likely COA of the enemy. The Decision constitutes the basic directive for the completion of the planning and for all future actions. As such it represents the outline concept of operations and must include the commander's intent .

Development and Review of the Plan. Once the Decision has been made, the plan is developed and directives or orders are produced. Subsequently, the situation is monitored. New information, as it becomes available, is used to re-evaluate the situation and in turn, the tasks. If the situation changes radically, the commander must return to the Estimate, starting at the Mission Analysis stage, to test whether his mission, decision or developed plan is still valid. However, while this re-examination of the estimate may occur at any stage of Battle Procedure, commanders must beware of over-loading either themselves or their staffs because of every unforeseen or minor change in the situation.

Time Available. The commander must ensure that he and his staff complete the planning and issue directives or orders appropriate to the level of command in sufficient time. This allows subordinate commanders to do the same, including the time taken for the dissemination of orders. This imperative for timely battle procedure applies down to the lowest level of command to ensure that soldiers have proper orders before being committed (or re-committed) to action. Thus a running check on the situation and the time available to make decisions, to complete planning and to issue orders must be maintained at every level of command. The *one third: two thirds rule*, whereby one level of command takes only one third of the time remaining before committal for decision-making and the issue of orders, is a good rule of thumb. However, this guide must not be applied inflexibly: often decisions will need to be made as quickly as possible. In most circumstances, it is advisable to conduct a preliminary analysis on the time available before the estimate process (including mission analysis) is initiated. Following this initial time analysis, planning guidance, including time deadlines (taking into account the time required to plan, reproduce and distribute orders,) should be issued to the staff.

MISSION ANALYSIS

MISSION ANALYSIS

Superior Commanders'Intent

Tasks

Constraints

Situation changed?

Commander's Direction and review

The Estimate starts with the commander's Mission Analysis. From the orders he receives, a commander must understand the context and purpose of his own mission statement. Under Mission Command, a subordinate assumes freedom of action unless he is otherwise constrained. Specifically, the commander will determine answers to the following four questions:

Question 1. **His Superiors' Intent**. (*Noting my immediate superior's role in his own commander's plan, what is my immediate superior commander's Intent and how must my action directly support it*?) The purpose here is to establish what effect a commander has to achieve in his **superior's concept of operations**. A commander is required to understand his superiors' Intent two levels above, and his immediate superior's Intent and Concept of Operations, in order to place his own actions into full context.

Question 2. **Assigned and Implied Tasks**. (*What must I do to accomplish my mission?*) Assigned tasks are those explicitly stated in the directives or orders received by the subordinate from his superior commander. Implied tasks are other activities that must be carried out in order to achieve the mission, including the requirement to support the superior commander's Main Effort. A logical check of the operation should reveal the implied tasks. A comparison of the assigned and implied tasks with the superior commander's intent should lead to an initial deduction of the critical activity required of the formation or unit, and likely Main Effort.

Question 3. **Constraints**. Specific constraints may include those of time, space and resources, including sustainment, to the way a commander executes his mission. (*What limitations are there on my freedom of action? What can I not do? When do I need to decide?*) Further limiting factors, including political restrictions, which prohibit the commander from undertaking specific actions, apply at all levels.

Question 4. **Changed Situation**. A commander needs to determine whether the situation has changed sufficiently to warrant a review of the estimate. Using Mission Analysis, the commander reassesses the progress of his operation against his Mission as the situation develops, applying Question 4 on a continuous basis. The commander can ask at any time: *Has the situation changed—and do I need to make another decision?* As well as: *No – no change*, there are three possible responses—

- Yes— the situation has changed but my plan is still valid.
- Yes— the situation has changed: my original mission is still feasible but I need to amend my plan.
- Yes— the situation has changed and my original mission is no longer valid. In this case, the commander should consult his superior but if for whatever reason he cannot, he will act on his own initiative to support his superior commander's Main Effort, in keeping with that commander's original intent. He will also keep in mind the commander's intent two levels up.

In the case of the second and third responses, the commander and his staff then review the Estimate, updating information as required, and confirm the Mission and Decision.

Mission Analysis thus allows a commander, without waiting for further orders, to exercise personal initiative and exploit a situation in a way which his superior would intend. The product of Mission Analysis is both a common start point for further consideration of the situation by both the commander and his staff and a means by which the commander reassesses the progress of an operation against his mission. He must judge by a process of continual review whether the situation has changed (either to advantage or to disadvantage of Friendly Forces) to a degree that requires him to make further decisions. Through constantly returning to 'Question 4', Mission Analysis is thus both an active and a reactive process.

Commander's Direction and Review. On completion of his Mission Analysis, the commander gives direction for the conduct of Battle Procedure (Commander's Planning Guidance) and may seek clarification if required. He reviews his mission throughout the process and subsequent execution.

- **Commander's Planning Guidance**. Normally the commander's first priorities will be to identify his critical information requirements (see explanatory notes after Figure 3A.1 on page 46) – to give focus to staff effort – and determine what has to be decided – and by when. The commander will also guide ACOS (Admin) and his staff on likely administrative priorities. This allows the G1/G4 staff to initiate the support service estimate that runs concurrently with the G2/G3 estimate. At this stage, the commander may have identified key tasks that must be completed, and constraints that may appear to exclude some courses of action. He can then concentrate his and his staff's effort on those options that appear more feasible. There are advantages in producing broad options at this stage, particularly when time is short. However, there is also an inherent danger in 'situating the estimate' before the factors are evaluated sufficiently in the main part of the estimate. Where the situation is complicated, a prudent commander will examine a wide range of courses of action. When time is short, the situation simple or the options limited, the commander may need to exercise judgement and restrict consideration. The degree to which a commander narrows his options will depend upon the time available for the decision, the complexity of the situation, the information available and what has already occurred. It will also vary with the experience and level of training of the commander and his staff.

- **Plan for the Staffwork**. Normally the principal general staff officer (COS/G3) will issue a Planning Directive in accordance with the Commander's Planning Guidance to provide direction to the staff for the completion of the collective Estimate. This Directive will include deadlines for contributions to the estimate, whether electronic, written or verbal (in the case of a Decision Brief to the commander). All members of the staff have a duty to comply with this plan for the staffwork in order that the commander can make his Decision on time. This staffwork is an interactive process involving both the commander and his staff, and between members of different staff branches or armed services.

- **Clarification**. In some circumstances, it may be appropriate to clarify any questions concerning the mission with the superior commander before undertaking the rest of the estimate. However, neither valuable time or staff effort should be expended at this stage in confirming points of minor detail.

- **Initial Warning Order**. In order to initiate timely battle procedure, an initial warning order should be issued at the completion of Mission Analysis. A full warning order, however, cannot be issued until after the commander's Decision.
- **Running Review**. Upon completion of Mission Analysis, the commander has reviewed his mission in the context of his superior's intent. He should be in no doubt as to what effect he has to achieve. It remains his responsibility to review the manner in which the remainder of the estimate is completed in relation to the mission and the prevailing situation. He must make his Decision on time.

EVALUATION OF FACTORS

Just as Mission Analysis considers tasks and constraints, so should the Evaluation of Factors lead to the deduction of tasks and constraints. Tasks come principally from the factors Enemy, Environment, Friendly Forces and Surprise and Security. Constraints are derived largely from consideration of the factors Security, and Time and Space. There may be other additional factors relevant to a particular campaign or operation that must be considered appropriate to the level of command. They may produce further tasks and constraints. The following factors are listed sequentially, but they are *not necessarily evaluated in this order*. In certain environmental conditions, there may be merit in considering the Environment before evaluating the Enemy. Secondly, while G2 staff is evaluating the Enemy, G3 and G4 staff are evaluating Friendly Forces, including support services, in parallel.

FACTORS

Enemy

Environment

Friendly Forces (including Sustainment)

Surprise and Security

Time and Space

Enemy. In evaluating the enemy, the commander and his G2 staff seek to form a clear impression of his capabilities, intentions, dispositions and objectives. This allows the examination of the capabilities of own forces with a view to exploiting the perceived vulnerabilities of the enemy and possible weaknesses in his assessed courses of action. While the commander may have a possible own course of action in mind, he and his G2 staff should *focus here on the enemy's will, vulnerabilities and probable intentions*. This is done within the context of the enemy's likely plan for a campaign or major operation. At the operational level and the higher tactical levels, the enemy's **centre of gravity** (*that characteristic,* *capability or locality from which a force, nation or alliance derives its freedom of action, physical strength or will to fight*) needs to be assessed and identified. Once identified, the **decisive points** on the path to attacking or eliminating the centre of gravity are determined.

Environmental factors include topography and demography (terrain, weather and local population, including religion and culture) and the likely interest and influence of the media, the latter factor assuming particular importance in operations other than war. Terrain and weather (including visibility) are grouped together under 'Ground'. Ground is considered in detail by Terrain Analysis, which considers both the enemy and own viewpoints. It will often be appropriate to consider the enemy, the ground element of environment and friendly forces together, particularly at the tactical level. Intelligence Preparation of the Battlefield is a command and staff tool that accomplishes this in an integrated manner.

An examination of own troops will determine the capability of employing particular formations or units for tasks identified so far in the estimate process. In addition, an evaluation of friendly forces, including those of flanking formations, may not only lead to constraints but more importantly, offer opportunities for seizing the initiative, including offensive action. The evaluation of friendly forces should include consideration of:

- **Air and Maritime Situation**. Options for ground manoeuvre are bound to be influenced by the prevailing air situation in terms of air superiority and availability of air resources to support land operations. In terms of campaign planning, and particularly in intervention operations, it may often be necessary to predicate land operations based on successful air operations. At both the operational and tactical levels, if air superiority or local parity cannot be achieved, the implications for ground forces must also be thoroughly examined under the factor Surprise and Security. The maritime situation must be evaluated in amphibious operations, or when naval assets are providing support.
- **Flanking, Forward or Depth Formations**. The status and intentions of friendly forces plays an important part in the estimate. This is particularly important when transitional phases such as forward or rearward passage of lines or link-up operations are envisaged. As the headquarters of neighbouring forces may be involved in parallel planning, close liaison while the estimate process is being conducted will prove mutually

beneficial. Specifically, liaison with flanking formations is essential during planning and thereafter to ensure transparency of boundaries and coordination of surveillance, barrier and fire plans. This liaison also includes coordination of joint reaction to enemy operations in the boundary area and maintenance of shared routes.

- **Own Forces' Capability** . Before courses of action can be developed, the status and hence capability of own troops, particularly in multinational formations, must be determined, if not already known. This will form part of the commander's Critical Information Requirements and will normally entail confirmation of—
    - ♦ **Organization and Equipment**. This involves expressing strengths as combat power, taking into account any associated limitations in the use of formations/units for particular tasks.
    - ♦ **Dispositions and Availability**. By time and space.
    - ♦ **Restrictions on Employment**. Restrictions include, for example, any limitations imposed by the command relationships of the forces involved.
- **Support Services.** Support services must be considered under friendly forces as sustainment constraints invariably modify or exclude tasks. This consideration includes not only the assessment of current and future sustainability, but also of the overall support service plan to sustain a campaign, major operation or battle. This may include support to deployment, establishment of administrative bases and the outload of stocks to these bases and the balance of stocks held at various levels. Some combat tasks may be sustainable, others only at risk: yet others may be unsustainable and should therefore be eliminated. Sustainability is assessed under the headings: **Distance**, **Demand** and **Duration**. Concurrent with the G2/G3 part of the estimate, a Support Service estimate is completed by the ACOS (Admin) and the G1/G4 staff. This estimate will identify administrative constraints on the commander's freedom of action and produce a support service plan to support the operation. In order to achieve economies of time and effort, it is vital that operational and administrative planners work closely together at this stage of their respective estimates.
- **Combat Capability**. The suitability of own troops must be assessed for employment for operations against the enemy in

particular types of terrain. While this is based on objective equipment considerations, the commander's more subjective judgement on the state of training, readiness and motivation of subordinate formations or units should be applied. In the case of a protracted campaign, the state of morale may become a critical factor. Thus whereas combat power can be quantified, combat capability is better expressed in qualitative terms, reflecting the suitability for employment in a particular environment of operations.

Relative Strengths. Relative Strengths are determined on the availability of combat power by numerical assessment (i.e. one tank battalion of 31 tanks does not equal one tank battalion of 78 tanks) and time and space for employment. Relative Strengths is also modified as necessary by the assessed combat capability of both enemy and own troops. In comparing Relative Strengths, the weaknesses of the enemy (including how his moral and physical cohesion can be attacked) are examined with a view to identifying courses of action and the force levels required for particular tasks. In considering Relative Strengths, **planning yardsticks** for movement and force ratios for particular types of engagements, based on operational research, are employed. Relative Strengths, therefore, is best done at the Wartime where empirical data is available to ensure valid comparisons. The Land Force Command System should assist in this assessment, as it will have a force ratio tool built into the software. Where Relative Strengths are included in the Estimate, the unreliability of estimated force ratios and weighting factors must be acknowledged.

Surprise and Security. Surprise concerns gaining or wresting the initiative from the enemy. Security involves maintaining the initiative and enhancing freedom of action by limiting vulnerability to hostile activities and threats.[45] The value of surprise is of paramount importance and so warrants critical examination at this stage of the estimate. The goal should be gaining 'absolute' surprise in order to disrupt or paralyze the enemy commander's will and decision-making ability. If this cannot be achieved, the lesser but often more practicable objective of 'operational' surprise, whereby the enemy determines too late what is likely to happen and is therefore powerless to react, can often prove effective. In order to effect surprise and security, it is mandatory that deception of the enemy, operations security (OPSEC) and protection of own troops are considered:

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[45] See CFP 300(1) Chapter 7.

- **Deception**. Deception is defined as *those measures designed to mislead the enemy by manipulation, distortion or falsification of evidence to induce him to react in a manner prejudicial to his interests*. Deception forms an important component of Surprise and Security. To be effective, deception should be integrated from the highest level downwards, and will usually require the committal of significant forces or resources to convince the enemy. Which commanders to inform of the deception plan must be a carefully considered decision. There is a balance between security and allowing a commander to consider the plan as a factor in his estimate in order that he does not inadvertently compromise the deception. Skilfully applied, deception can provide considerable benefits. Because of scarce resources, however, it is essential to target accurately the level of command that needs to be deceived. The staff should determine what indicators are required, and establish what reconnaissance assets the enemy has to discover the indicators. These considerations provide the basis of the deception plan.
- **OPSEC and Protection**. (*How do I protect my plans and forces? How do I stop the enemy exploiting my key vulnerabilities? How do I conceal my intentions from him?*) OPSEC (which seeks to deny operational information to the enemy) and Protection produce both additional tasks and constraints. They must be considered together, within the context of the operational level Command and Control Warfare plan (for an introduction to Command and Control Warfare, see Figure 3.1), if one is not to negate the other. At the operational level, the protection of own forces'centre of gravity must be assessed. Key vulnerabilities, which the enemy will attempt to exploit, should be examined at all levels.

Time and Space. This factor will constrain the courses of action. The commander or his staff must assess the timings associated with each task identified so far. Timing includes both the sequence and duration of tasks, as far as this can be realistically assessed before contact with the enemy. In this context, the use of **yardsticks** (such as movement planning data) for time and space is an important command and staff tool.

Consideration of Any Other Relevant Factors. Other factors at the operational level or for operations other than war will include Rules of Engagement and influences such as legal constraints, the media and civil-military relations. These factors may impinge on the mandatory factors (principally enemy, environment and friendly forces). Although no additional combat tasks may be deduced, these factors can have a significant effect on the conduct of a campaign, major operation, battle or engagement and should be included as necessary.

Summary of Possible Tasks. At this stage, the Estimate will have identified a list of possible tasks. The straightforward approach is then to list all the tasks and to quantify the total combat power required two levels down e.g. sub-units for a brigade estimate. However, often the requirement will exceed the troops available, leading to the deduction that tasks should be sequenced. In contrast, a course of action with the deliberate acceptance of risk might obviate the need either to undertake some of the tasks, or to commit a significant component of available forces to them. Thus, only a preliminary assessment of the combat power required for each task should be undertaken before the consideration of courses of action. This will produce a summary list of possible 'troops to task'. **Tasks can only relate to one another in developed courses of action and therefore the detailed allocation of troops or assets to tasks must follow the commander's Decision, not precede it** .

CONSIDERATION OF COURSES OF ACTION

Formulation of Courses of Action. A course of action should reconcile the troops available with the troops required for tasks, and include an outline concept of operations with a clear indication of Main Effort. It is quite proper to adjust the balance of troops to various tasks to economize effort in one activity in order to concentrate force in another. The extent to which various options can be developed before comparison, rests on the time available and the extent to which the options have been narrowed down during the estimate process. At lower tactical levels, there may be only one workable course of action and the only decision left to the commander is to allocate combat power to the identified tasks. If sufficient forces appear available to complete all tasks concurrently, then the weight of combat power assigned to each task must be evaluated. If forces are not sufficient, then some tasks may have to be re-assessed or conducted sequentially. Sequencing causes implications for the concentration of force in order to achieve the appropriate correlation of forces. Common elements of courses of action should be identified and considered as early as possible to save effort prior to the commander's Decision. Only the contrasting aspects of courses of action need comparison. Each course of action, however, should include consideration of what the likely enemy reaction to it will be.

Focus on the Enemy. At the higher tactical levels, and most certainly at the operational level, the higher commander must always strive to identify a number of alternative courses of action which focus on the enemy's centre of gravity or his key vulnerabilities. This approach can also be followed at lower levels. Courses of action should focus on shattering the enemy's moral and physical cohesion, which can often result from achieving surprise. Where there is a balance to strike between adopting a more predictable or secure approach and selecting a less obvious course of action, success may rest on adopting the course of action least expected by the enemy. This entails calculated risk-taking, one of the tests of command ability at any level.

Comparison of Courses of Action. The advantages and risk of the courses of action are considered in relation to the mission and likely enemy courses of action; taking into account his likely reactions. Courses of action are re-checked against Questions 1 and 2 of Mission Analysis. This will confirm whether they meet the Superior Commander's Intent (Question 1) and achieve the critical activity (*what overall effect must I achieve?* derived from the assigned and implied tasks in Question 2). If they do not, then such courses of action should be discounted. Military judgement must be exercised to compare advantages and disadvantages of courses of action and make appropriate evaluations.

War-gaming. War-gaming of possible courses of action must be completed to determine likely responses to the actions of the enemy and own forces. War-gaming should include the possible consequences of operations in flanking forces' areas. Computer assisted war-gaming will prove increasingly important and practicable in the future when field headquarters are equipped with the Land Force Command System.

Synchronization Matrix. The recommended method for the planning and coordination of battlefield activity in time and space is the development of a Synchronization Matrix. It is a graphical planning tool that assists the commander and his staff to analyze own courses of action (including deep, close and rear operations and supporting Combat Functions). A Synchronization Matrix also relates time and space to the enemy's most likely course of action. The chart includes *time*, the *enemy course of action* and *own course of action*, and the standard Combat Functions developed as required. Once operations are underway, however, the Synchronization Matrix should not be rigidly applied in a fluid situation; otherwise, favourable opportunities to take the initiative will be lost. A sample Synchronization Matrix, developed from an approved course of action, is at page 118.

COMMANDERS DECISION

In NATO doctrine, the commander's Decision is described—

> As the final step in the estimate process, the commander considers the courses of action open to him to accomplish his mission. He selects his course of action and expresses it as his decision. From the decision, he develops his concept of operations, which must include his intent. The commander's decision should embody his will for the conduct of the operation.

Thus the commander's Decision has *two* elements: first, the selection of a course of action (which can be a modification of a proposed course of action[46]) and, secondly, the expression of an outline concept for that action. The expression of the decision or subsequent confirmation of it as a concept of operations is *not* a staff function as the commander himself must be able to identify with it himself and motivate subordinates with *his* Decision.

The commander's Decision should state:

- The formation or unit involved (*who?*)
- His **Intent** (*why?*)
- A broad outline of intended operations, (*what, where and when?*) and **Main Effort**.

Wherever possible, the Decision should be passed quickly to subordinates to initiate concurrent activity. Thus an Initiating Directive at the operational level or a Warning Order at the tactical level sent on completion of Mission Analysis may be supplemented by the commander's Decision in the form of a Supplementary Warning Order. Once made, the Decision is not to be altered lightly. Given the fluctuating circumstances of war, however, inflexible adherence to a decision as the situation changes may lead to errors, including missed opportunities. The art of command consists of a timely recognition of the circumstances and moment demanding a new decision.

DEVELOPMENT AND REVIEW OF THE PLAN

Preparation of Orders. Once the commander has made his decision, the staff has the responsibility to complete the plan under his, or

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[46] A higher commander, however, should be aware of the possible risks involved in modifying a fully considered COA. It may necessitate a number of staff checks to confirm its validity.

COS/G3 Plans' direction. The concept of operations is based on the commander's decision. It includes his Intent and a statement of main effort required to achieve the mission.[47] In most circumstances, it will be appropriate for the commander to produce his own concept of operations. Tasks for subordinates are then developed. Once the tasks are confirmed, the task organization can be checked to ensure that sufficient resources have been allocated.

Evaluating the Threat. This is carried out as Step 3 of the Intelligence Preparation of the Battlefield in parallel with the development of the plan. It is a continuous process with products used during the war-game in conjunction with friendly courses of action. Results of the wartime are compiled into a **Decision Support Template** (see example at Figure 6.4) by the G3 staff. This template contains critical areas or events (including targeting) which may require decisions by the commander (his Decision Points) and trigger the mission analysis stage of a new decision cycle. As the operation plan is developed, so is the support service plan. The ACOS (Admin) and the G1/G4 staff complete the support service estimate and produce the support service plan. As the main operation plan is reviewed and updated, the support service plan is amended to reflect changes.

Targeting. This process is closely linked to the development of the plan and threat integration in particular. The acquisition of depth targets, tracking and their subsequent attack is a process requiring detailed coordination. Targeting is defined as *the process of selecting targets and matching the appropriate response to them, taking into account operational requirements and capabilities*. It is therefore a combined command and staff function, which enables enemy targets to be identified, evaluated and then attacked. At the operational and higher tactical levels, targeting is joint air/land responsibility. A sample Attack Guidance Matrix is at page 120.

Review of the Plan. The situation must be monitored carefully during preparation and dissemination of orders and throughout the execution of an operation in order to confirm the validity of the Mission. While much of this control is a staff function, the commander's own review of his Mission Analysis must play its part. If the commander is forward, directing close operations or visiting subordinate formations, his principal general staff officers and Arms and Service commanders must be in his mind'. They must be both trained and allowed to act positively if the situation demands it. Thus a continuous review of the plan takes place at all levels and staff and subordinates are encouraged to act for themselves without waiting for detailed instructions or orders. This delegation of authority reflects Mission Command philosophy within the command and staff team.

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[47] See Figure 3.2 – Mission Command Terminology at page 37, for a more detailed explanation of Commander's Intent and the Concept of Operations.

Contingency Planning. Contingency planning is the process by which options (including alternative or further developed courses of action) are built into a plan to anticipate opportunities or reverses. The process gives the commander the flexibility to retain or restore the initiative. In reviewing the plan, war-gaming techniques can be applied to Mission Analysis 'Question 4— What if' scenarios. Thus, war-gaming plays a critical part in contingency planning, especially in the prediction of likely enemy reactions to friendly forces initiative and the exploitation of opportunity. Contingency planning can be undertaken at any level but there is a limit to what can be achieved. **It is impossible to cater for every eventuality; no amount of contingency planning can replace the priceless ability of a commander to act quickly, appropriately, decisively and resolutely in a totally unexpected situation**. In such circumstances, the estimate process, tempered by intuition and military judgement, will still play a crucial role in decision-making. War-gaming and contingency planning should be continued after the commander has made his decision, as more information becomes available. In particular, previously discarded or entirely new courses of action, for both the enemy and own troops, can be War-gamed and developed as time permits, to consider as possible branches and sequel s'to the existing plan.

THE ESTIMATE IN WRITTEN FORM

MISSION The task(s) given, and the purpose, against which all factors are considered.

STEP 1 – MISSION ANALYSIS

Question/factor (a)	Consideration/deduction (b)	Tasks/constraints (c)
(Why?) 1. a. Superior Commanders (1) Two levels up (Intent) (2) One level up (Intent and concept of Ops) b. My Role in his Plan	How must my action directly support my immediate superior, taking into account his intent and concept of operations, and the intent two levels up?	
(What?) 2. Tasks. a. Assigned b. Implied	What task(s) must I complete to fulfil my Mission?	
(What not? When?) 3. Constraints. a. Time incl fixed timings b. Space c. Resources d. ROE	What limitations are there on my freedom of action? By when do I need to decide?	
4. Changes to the Tactical Situation a. Mission no change b. Changed mission	Situation changed since orders were received or the estimate completed? – Nothing changed – Minor change –Significant change –Major change	– No change. Mission confirmed – Same Mission, same Plan – Possibly new Mission and new Plan. Refer to Superior Comd, or if not possible, act in support of his Main Effort, taking into account his Intent.

5. Commander's Direction a. Critical Information Requirements (to focus staff effort) b. Planning Guidance (Down) c. Clarification (Up)	What has to be decided? Who is to check what, if I am not going to complete this estimate totally myself? How long will it take to complete the estimate and prepare orders? →	(For example, combat power required and axis of attack) Issue Warning Order

STEP 2 – EVALUATE FACTORS

(a)	(b)	(c)
6. Environment, Enemy and Friendly Forces a. Ground (1) Battlefield Area Evaluation (a) Terrain (Overlay) i. General ii. Vital Ground/ Key Terrain iii. Boundaries iv. Left v. Centre vi. Right (b) Approaches. Overlay (including impact of expected weather) i. Own (1) Going/ Routes (2) Obstacles (3) Dominating Ground (4) Distance (5) Enemy Perception ii. Enemy (1) Going/ Routes (2) Obstacles (3) Dominating Ground (4) Distance	Column (a) can be graphic, columns (b) and (c) must be written (note form)	
(a)	(b)	(c)

(c) Weather i. RISTA Implications (including day/night) ii. Air/Aviation implications		
b. Enemy (1) Threat Evaluation (Doctrinal Overlays) (a) Organization (b) Equipment (c) Support Services (d) Tactical Doctrine (2) Threat Integration (a) Aims and Intentions (b) Dispositions (c) Strengths and Weaknesses (d) Enemy COA Overlays c. Friendly Forces (1) Air (2) Maritime (3) Flanking, Forward or Depth Formations (4) Own Forces Capability (a) Org and Equipment (b) Dispositions/Aval (c) Restrictions on Employment (d) Strengths and Weaknesses (5) Support Services. (a) Distance (b) Demand (c) Duration (d) Destination		
(a)	(b)	(c)

(6) Relative Strengths (Only if not done in Wartime)		
7. Surprise and Security		
a. Surprise		
b. Security		
c. OPSEC and Protection		
8. Time and Space		
a. Fixed Timings		
b. Enemy Timings		
c. Own Timings		
d. Time and Space Constraints		
9. Other Relevant Factors	(P Aff, Host Nation Support, ROE. Etc.)	
10. Summary of Possible Tasks. (In order of Importance)		

Task	Tps Required	Remarks
(a)	(b)	(c)

a. Essential Tasks		
b. Optional Tasks		

STEP 3 – CONSIDERATION OF COURSES OF ACTION (COA)

11. What is common to all COA?		
12. COA 1. Concept including Main Effort and schematic.		
a. Advantages		
b. Disadvantages		

(a)	(b)	(c)
13. COA 2. Concept including Main Effort and schematic. a. Advantages b. Disadvantages		
14. COA 3. Concept including Main Effort and schematic. a. Advantages b. Disadvantages		
15. Comparison of Courses of Action. (Planning Tools, War-gaming, and the Decision Support Template should be used here)		
STEP 4 – COMMANDERS DECISION		
16. Decision a. Selection of COA b. State outline Concept of Operations, (including Intent (What? Where? When? And How?) and Main Effort.	At the Operational level, consideration of factors leads to a campaign plan.	**ISSUE SUPPLEMENTARY WARNING ORDER**
DEVELOPMENT OF PLAN		
17. Development of Plan a. Planning Tools (1) Production of Decision Support Template (DST) (2) Production of Synchronization Matrix (3) War-gaming		
18. Task Org		
19. MISSION		

20. EXECUTION a. Concept of Operations Commander's intent, (deep, close, rear ops) and Main Effort. b. RCD c. 1 RCR d. 2 RCR e. Avn e. Offensive Support Mission Statement f. Priorities for Cbt Sp (1) Artillery (2) Engineer (3) Air (4) C2W g. Coord Instructions (not exhaustive) (1) Timings (2) Recce Priorities (3) Deception (4) OPSEC		
21. SUPPORT SERVICE a. Replenishment b. Repair and Recovery c. Health Services		
22. COMMAND AND SIGNALS		

Table 6A.2 – The Estimate in Written Form

CHAPTER 6 – ANNEX B

THE COMBAT ESTIMATE

General. At the tactical level, particularly when time is short and information is incomplete, compressed decision-making techniques are required to take the place of the more formal estimate process. An abbreviated form of the estimate, usually completed in mental or note form, is called the Combat Estimate. The Combat Estimate can be completed by map study (including IPB if appropriate), by observation on the ground, or by a combination of both.

Format. In all cases, Mission Analysis is mandatory in the Combat Estimate. In most circumstances, the rest of the estimate will concentrate on the Enemy and the Ground element of Environment, Friendly Forces, together with Surprise and Security. Time and Space are normally mandatory, as these deductions are required to derive coordinating instructions for orders. Additional factors are added if necessary - as will often be the case in operations other than war. See *Unit SOPs* for further details.

Conduct:

- **Approach**. While a command and staff team normally completes a formal estimate, the Combat Estimate is usually done by one individual at formation level and below: the commander. He will invariably complete his mission analysis, but may choose to delegate some parts of the Combat Estimate (such as Enemy and Ground) to another officer. The guidelines for the completion of the Combat Estimate and the sequence of factors to be evaluated are essentially the same as for the formal estimate. The detailed manner in which the Combat Estimate is completed will be determined by the local commander taking into account the prevailing tactical conditions, including the time available to make his decision.
- **Focus on the Enemy**. In completing the Combat Estimate, it is important to concentrate on Own Force's ability to exploit the Enemy's vulnerabilities and intentions. This is consistent with an approach to operations at all levels, which emphasizes that fleeting opportunities to take the initiative should be grasped. Thus, active consideration of the situation in order to seek a

COA that surprises and deceives the Enemy is fundamental to any Combat Estimate.

- **Role of Intuition**. The most effective and timely combat estimate is intuitive (in effect, the commander has the experience and training *to only see the best possible course of action*). This approach is the ideal— but takes much training and experience to attain this level of proficiency. This skill is derived, in large measure, from a complete understanding of the more formal estimate, possible only through long practice. Anything less than a complete understanding based upon actual experience in the current operation is extremely dangerous and will lead to disaster.
- **Planning Yardsticks**. Knowledge of planning yardsticks (such as for deployment and movement) and a sure feel for their application in battle will speed the completion of the combat estimate. Examples of planning yardsticks can be found in the *Unit SOPs*.

CHAPTER 6 –ANNEX C

THE OPERATION PLANNING PROCESS

This publication will describe the Operation Planning Process as a series of steps. However, it is a mistake to view the process as a sequence of discrete, distinct activities. In reality, a commander and his staff may be required to work simultaneously on current and subsequent missions, to develop contingencies or, because of time imperatives, to compress elements of the process. The Operation Planning Process must fit within the time available as determined in the initial time estimate. Symmetry of activity for all the players in the process is neither realistic nor necessarily desirable. The Operation Planning Process, similar to the estimate, occurs within the first three steps of Battle Procedure— Direction, Consideration and Decision. It has been organized into a series of six steps in order to dovetail and promote mutual understanding with the planning process conducted at the military strategic level at National Defence Headquarters:

- **Step 1**. Receipt of tasks
- **Step 2**. Orientation
- **Step 3**. Development of courses of action
- **Step 4**. Decision
- **Step 5**. Plan Development
- **Step 6**. Plan Review

DESCRIPTION

Step 1 – Receipt of tasks. This step is straightforward. The higher the level, the broader the task is apt to be. The Operation Planning Process may often be conducted to examine a specific contingency but the task or tasks may be vague. On receipt of the task, the COS/G3 should issue an internal warning order to the staff in the headquarters. Even if sketchy, the warning order should be sufficient to focus all staff branches to begin the gathering of data for the operation.

Step 2 – Orientation. This step begins with mission analysis and the commander's initial estimate and concludes with planning guidance given by the commander to the staff. Mission analysis is done by the commander, who may be joined by his key staff or advisors according to the commander's choice and the nature of the task to be accomplished. During mission analysis, the how of the operation is determined in general terms. Either alone, with his COS, or with selected members of his senior staff, the commander carries out an informal estimate of the situation. Only the most obvious factors can be examined here. This will allow the commander to develop a tentative or preliminary concept of operations and will permit the preparation of planning guidance. Following this initial estimate, the commander is now able to deliver his unrefined mission statement, intent and possibly a broad concept of operations in his Planning Guidance. This will serve as a unifying theme for the staff. The statement of intent may be quite general. It should be in harmony with the intent of the higher commanders but not so restrictive to hinder the exploration of creative courses of action. The commander may modify the statement of intent at anytime during the process. The articulation of the final statement of intent occurs only when the commander decides which course of action to adopt (step 4). Other issues the commander may wish to include in his planning guidance include:

- specific courses of action
- timings (critical issues such as time of orders, H hour and duration of operations)
- where risk may be acceptable to ensure mission accomplishment
- command and control arrangements
- specific guidance on any portion of the battlefield
- his Main Effort
- assumptions
- the commander's critical information requirements (CCIR)
- reserve(s)
- critical events to be examined
- sustainment.

Step 3 – Development of Courses of Action. Once the commander has given his planning guidance, the staff can begin to identify options for enemy and friendly courses of action. The G2/G3 staff will analyze the operating environment. They match the operation to the relevant aspects of the ground and weather, and to the civil, political, and military situations. Following this, they generate possible friendly and enemy courses of action. The presentation of courses of action in outline form occurs at the **information briefing** and is then further developed for presentation to the commander at the decision briefing. The G4 staff, having already identified resources, will perform staff checks to assist in the development of the friendly courses of action. All staff members identify issues, which will require resolution before the commander can decide on his concept of operations. The role of the COS in the information briefing is critical. He ensures that the information and COAs to present to the commander at the decision briefing are a synthesis of input of all staff sections and that they are pertinent. He further ensures that the courses of action are consistent with the commander's intent and planning guidance.

Given this unity of purpose, the staff can focus their efforts and deal with the issues in greater detail:

- The G3 Plans refines the friendly courses of action. Each is depicted graphically, complete with control measures. Courses of action are modified based upon the latest staff checks by other staff planners. The G3 Plans considers the options for command relationships, such as who should command a deep operation. The G3 Plans will propose these options during the decision briefing.
- The G2 refines the enemy courses of action. He suggests to the G3 Plans possible deep battle objectives. The G2 refines the commander's priority intelligence requirements for each friendly course of action and pursues the collection of pertinent intelligence.
- The ACOS (Admin) directs the administrative estimate process. Administrative courses of action, at least in outline form, are developed for each of the friendly courses. Staff checks are refined. The administrative planners determine the level of risk that must be accepted in supporting each friendly course of action. Alternate methods of supporting the operational plan are explored.
- The arms advisors are also involved. They investigate the requirements for obstacle crossing, barriers, air defence, deep attack, fire planning, tactical airlift and the myriad of supporting activities necessary to the larger operation.
- The G2 and G3 analyze or wartime each friendly course against each enemy course. The purpose is to develop a comprehensive comparison of the friendly courses of action. The G3 should modify the concept of operation to maximize its effectiveness against enemy courses of action. The G3 will also identify key decision points (by time, event or location). These will result in branches[48] to the plan to deal with anticipated enemy activity. The G2 must act as an honest representative of the enemy, faithfully reproducing reactions within the enemy's capability and doctrine. The G2 will also recommends refinements to the

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[48] For a more detailed description of branches and sequels, see CFP 300(1) Chapter 5.

priority intelligence requirements and the collection plan, as enemy activities become apparent from the war-gaming process.

Step 4 – Decision. At higher levels, the COS directs the decision briefing taking advantage of standard formats and graphic displays. Once the description of all the courses is complete, the COS recommends the course of action that he and the staff see as most likely to succeed. The commander then decides on the course of action to execute. He may choose one of the courses as presented or elect to make modifications. Along with the concept of operations, the commander decides on the administrative concept. The commander then articulates his statement of intent. Finally, the commander and the staff resolve all outstanding issues.

Step 5 – Plan Development. Once the commander has made the decision, the staff sections produce their portions of the order. Concurrently, the commander and key staff should wartime the course of action. The war-gaming process serves as a rehearsal for the operation so when the enemy acts in an anticipated manner, an appropriate response has already been planned. For more information on war-gaming, see page 123. The administrative staff will normally produce an annex to the operations order. The G3 Plans or staff duties section collates the order. Following approval by the COS (or commander if available) the orders are transmitted to subordinates. The G3 staff are now able to produce the Decision Support Template, the Attack Guidance Matrix and the Synchronization Matrix for their own use during the operation (samples are included in the annexes to this chapter). These staff tools, for the most part, are simply records of the commander's decisions during the wartime— points of reference if a given scenario develops as foreseen.

Step 6 – Plan Review. The commander should prioritize the possible contingencies resulting from the wartime completed in Step 5 to address in further cycles of the Operation Planning Process. These cycles will develop branches to the original plan if changes are required, or sequels to be ordered upon completion of the original plan for the next phase of the operation or campaign. Plan Review also encompasses an ongoing assessment of the effect of changes to the situation on the plan. This assessment is done using Question 4 of Mission Analysis (*has the situation changed*?), thus completing the planning process cycle.

CHAPTER 7 - THE FUNCTION OF COMMAND IN CONTEXT

Command has been described throughout this publication as a combat function operating within a larger framework to produce combat power. Chapter 7 will address the broader issue of Command within the context of producing combat power for the Canadian Army, and in Joint and Combined Operations.

INTRODUCTION

The fundamental role of Canada's Army is to fight and win its wars. The army, however, rarely operates alone and must be capable of joint operations with the Air Force or Navy, and multinational operations with the armed forces of other nations. Regardless of the level of application, the army's approach to operations is based upon the tenets of Manoeuvre Warfare, augmented by a command philosophy of Mission Command. These two themes have remained consistent throughout CFP 300(3) *Command*. In this publication, the command system has been built on the human and doctrinal components of command, together with their necessary supporting systems. Although modern warfare is heavily reliant on technology, emphasis has been placed on the human aspect of command, the importance of the commander in all operations and planning, and the organizational dynamics of a military force. Our command system, however, remains incomplete, as it has focused solely on one combat function—command, within the army's model of combat power.

The remainder of this chapter will relate command to three settings. The first entails presenting the army's model of combat power in order to appreciate the interplay between all combat functions. The second consists of broadening the scope of command to the milieu of the three levels of war: strategic, operational and tactical. The third is a brief discussion of joint and multinational operations. Finally, issues pertinent to command of operations in the information age will be addressed.

COMBAT POWER

The army defines six combat functions: command, information operations, manoeuvre, protection, sustainment and firepower. Commanders seek to integrate and apply these functions as overwhelming combat power when and where required. CFP 300(1) *Conduct of Land Operations* defines combat power as *the total means of destructive and/or disruptive force that a military unit or* *formation can apply against an opponent at a given time*. The aim is to convert the potential of forces, resources and opportunity into actual capability that is greater than the sum of the parts. The role of the commander, and hence the command combat function, is to provide the means to integrate the activities of the other combat functions. Command is the glue that ensures the cohesion of our military force and the solvent that dissolves the enemy's.

Command has three main elements: decision-making, leadership and control. Manoeuvre Warfare emphasizes the destruction of the enemy's will to fight by concentrating combat power in a deliberate program to attack his centre of gravity. Combat power is generated through integration of combat functions, designation of a main effort, synchronization at the correct time and place, and controlling the tempo—speed of action and reaction. Combat power, therefore, is attained by the cultivation of excellent leadership skills, together with a quick and sound decision-making capability primed by accurate, timely feedback through control mechanisms.

LEVELS OF WAR AND PLANNING

It is also necessary to place our system into the context of the strategic, operational and tactical levels of war and planning. CFP(J)5(4) describes the global environment in which the Canadian Forces operate. This environment is characterized by a period of transition from a bipolar (two superpowers) to a multi-polar world, with modern trends that influence international behaviour and attitudes. These trends cover a wide spectrum: the proliferation of nuclear, biological and chemical technology, the excessive accumulation of conventional armaments with dwindling global resources to sustain an increasing population. Domestic and foreign policies are implemented in an increasingly complex security environment with political, economic, social, cultural, environmental, technological and military ramifications. The Canadian Army must be prepared to carry out operations from warfighting to operations other than war as expressed in CFP 300(2) *Land Force Tactical Doctrine*. Commanders must be flexible, possess a deep understanding of their role, understand the capabilities of their force and realize the ramifications of their actions. As well, they are often required to coordinate their efforts with other services (military and non-governmental) and nations. The achievement of general purpose combat capability is a tremendous challenge to leadership, especially given the reality of restricted peacetime budgets.

The three levels of war—strategic, operational and tactical, define the framework within which this collaborative effort must take place. It is imperative that well-defined political goals and objectives are supported by corresponding military resources in order that effective and efficient operations are conducted to achieve a desired tactical end-state. Within this framework, commanders at all levels must decentralize authority to the lowest practical level in order to achieve the synergism inherent in combat power. This type of dynamic is only possible within an environment where trust and mutual understanding are fostered and cultivated. This is the responsibility of commanders at all levels.

JOINT AND COMBINED OPERATIONS

The Chief of Defence Staff is responsible for strategic level planning. As the principal military adviser to the government, he is the link between national policies and objectives, and their corresponding military strategy and plans. When the military responds to a government objective, a range of force options is prepared for consideration. Following government approval, a detailed plan is completed. This planning is not done in isolation, but with close coordination required between all levels of command. Synchronizing the army Operation Planning Process with the strategic planning process, as detailed in Chapter 6, will ease this coordination.

The army will almost exclusively be involved in multinational operations in the case of commitments outside of Canada. These commitments could be in the form of separate land, sea or air forces under the direction of allied services, as existed in both World Wars, Korea and in the Gulf War. However, the Canadian Forces may also operate as an independent joint force within a multinational chain of command, such as in Somalia in 1992-93.

Command within combined and joint operations presents specific challenges. The establishment of a clear chain of command is necessary. However, the normal maintenance of national links will complicate the operational chain of command. Unity of effort requires consensus building, which is possible only with a clear understanding and recognition of each nation's requirements, capabilities and perceptions. Strategic and operational commanders must maintain this consensus as the operation or campaign unfolds, despite the possible negative impact on the efficiency of their plans.

Commanders operating in joint and multinational operations must also be aware of the differences between the participants in terms of operating procedures, equipment capabilities, doctrine, language and religion. This may involve respecting religious holidays, modifying dress regulations or operating with the assistance of interpreters. Incompatible information systems and differences in map-marking symbology, operating procedures and cross-country mobility can be expected. Commanders may face technological disparities between units with a mixture of weapon systems including the possession of equipment similar to the enemy. In addition, because of varying national restrictions, certain intelligence efforts might not be available to all national forces. Interoperability considerations greatly increase the duties and responsibilities of commanders and their staffs, and must be considered during the planning for an operation and as an integral component of training.

COMMAND IN THE INFORMATION AGE

Many of the factors that affect command are timeless—the nature of war and uncertainty and time. Conversely, some factors are specific to a particular era. The prevailing characteristic of the Information Age is rapid, ongoing change, which results in a wide variety of potential conflicts and military commitments. These commitments require response capability from environmental disaster on the one extreme, to war fighting on the other.

Technological improvements in mobility, range, lethality, and information gathering continue to compress time and space, forcing higher operating tempos and creating greater demands for information. The result is fluid, rapidly changing military situations requiring continuous information and creating greater strain on commanders and command systems. Technology has its dangers. Commanders may become over-reliant on it, at one end of the spectrum, or fail to take advantage of it, at the other. Used unwisely, technology can be part of the problem, contributing to information overload and the dangerous fallacy that certainty is attainable. The Canadian Army believes that technology cannot reduce the role of people in the command process, but rather enhances their performance and increases our operational effectiveness.

Our philosophy of command recognizes and accepts war as a complex, uncertain, disorderly clash of wills, and seeks to provide commanders with the best means to win. Mission Command empowers commanders at all levels to respond to uncertainty and to generate the tempo necessary to bring about a victory. Our command systems are a balance of technology, organizations, procedures and people, but the underpinning key to success is the ethos, trust and common bonds within the army. The more time and energy commanders devote to the study of command and their profession, the more they will be in a position to provide the type of leadership deserved by the Canadian soldier.

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GLOSSARY

This Glossary is provided as a guide to terminology for the commander. It is current as of June 1997, but should not to be regarded as authoritative as changes after the publication date cannot be reflected. The terms are ADTB approved unless otherwise noted.

Administrative Control

Direction or exercise of authority over subordinate or other organizations in respect to administrative matters such as personnel management, supply, services, and other matters not included in the operational missions of the subordinate or other organizations.

Alliance

The result of formal agreements between two or more nations for broad, long-term objectives.

Area of Influence

A geographical area wherein a commander is directly capable of influencing operations, by manoeuvre or fire support systems normally under his command and control. **(AAP-6)**

Area of Interest

That area of concern to the commander, including the area of influence, areas adjacent thereto, and extending into enemy territory to the objectives of current or planned operations. This area also includes areas occupied by enemy forces who could jeopardize the accomplishment of the mission. **(AAP-6)**

Area of Operations

That portion of an area of war necessary for military operations and for the administration of such operations. **(AAP-6)**

Battle

A series of related tactical engagements.

Battle Procedure

Battle Procedure is the entire military process by which a commander receives his orders, makes his reconnaissance and plan, issues his orders, prepares and deploys his troops and executes his mission.

Branch

A contingency plan for changing the disposition, orientation or direction of movement of the force.

Campaign

A campaign is a sequence of planned, resourced and executed joint military operations designed to achieve a strategic objective within a given time and space more usually involving the synchronization of land, sea and air forces.

Campaign Plan

A plan for a series of related military operations aimed to accomplish a common strategic objective, normally within a given time and space.

Centre of Gravity

That aspect of the enemy's overall capacity which if attacked and eliminated, will lead either to his inevitable defeat or his wish to sue for peace through negotiations.

Close Operations

Offensive or defensive operations where forces are in immediate contact with the enemy.

Coalition

An ad hoc agreement between two or more nations for a common action.

Cohesion

At its simplest, cohesion is unity. It is a quality that binds together constituent parts thereby providing resilience against dislocation and disruption. It minimizes vulnerability to defeat in detail and the adverse effects of pre-emption.

Combat Power

The total means of destructive and/or disruptive force which a military unit/formation can apply against the opponent at a given time. (**AAP-6**)

Combined Arms

Application of several arms, such as infantry, armour, artillery and aviation.

Command

The authority vested in an individual of the armed forces for the direction, coordination, and control of military forces. (**AAP-6**)

Command and Control

The process by which commanders plan, direct, control and monitor any operation for which they are responsible. (**CFP(J)5(4)**)

Command and Control Warfare

The integrated use of all military capabilities including operations security (OPSEC), deception, psychological operations (PSYOPS, electronic warfare (EW and physical destruction; supported by all source intelligence, communications and information systems; to deny information to, influence, degrade or destroy an adversary's command and control capabilities while protecting our own against similar actions.

Commander's Intent

A concise expression describing why a mission is being conducted and the desired end-state situation.

Concept of Operations

A clear and concise statement of the line of action chosen by a commander in order to accomplish his mission. (**AAP-6**)

Constraint

Limitations placed on the command by a higher command. Constraints restrict freedom of action for planning a mission by stating what must be done.

Contingency Planning

A process which takes account of contingencies by preparing likely courses of action to deal with a range of potential incidents or situations in specific geographical areas. (**CFP(J)5(4)**)

Control

That authority exercised by a commander over part of the activities of subordinate organizations, or other organizations not normally under his command, which encompasses the responsibility for implementing orders or directions. All or part of this authority may be transferred or delegated. (**AAP-6**)

Coordinating Authority

The authority granted to a commander or individual assigned responsibility for coordinating specific functions or activities involving forces of two or more countries or commands, or two or more services or two or more forces of the same service. He has the authority to require consultation between the agencies involved or their representatives, but does not have the authority to compel agreement. In case of disagreement between the agencies involved, he should attempt to obtain essential agreement by discussion. In the event he is unable to obtain essential agreement he shall refer the matter to the appropriate authority. **(AAP-6)**

Culminating Point

In manoeuvre warfare, the point when the current situation can just be maintained but not developed to any greater advantage.

Deception

Those measures designed to mislead the enemy by manipulation, distortion or falsification of evidence to induce him to react in a manner prejudicial to his interests. **(AAP-6)**

Decision

As the final step in the estimate process the commander considers the courses of action open to him to accomplish his mission. He selects his COA and expresses it as his decision. From the decision he develops his concept of operations which must include his intent. The commander's decision should embody his will for the conduct of the operation. **(ATP-35(B))**

Decisive Point

An event, the successful outcome of which is a precondition to the elimination of the enemy's centre of gravity.

Deep Operations

Operations conducted deep behind enemy lines to secure advantages in later engagements, protect the current close battle, and contribute to the enemy's defeat by denying freedom of action and disrupting or destroying the cohesion and tempo of its operations.

Directive

A military communication in which policy is established or a specific action is ordered. **(AAP-6)**

Doctrine

Fundamental principles by which the military forces guide their actions in support of objectives. It is authoritative but requires judgement in application. **(AAP-6)**

End-State

The end-state is that state of affairs which needs to be achieved at the end of the campaign to either terminate or resolve the conflict on favourable terms.

Information Operations

Continuous military operations with the Military Information Environment that enable, enhance, and protect the commander's decision cycle and mission execution to achieve an information advantage across the full range of military operations. Information operations include interacting with the Global Information Environment and exploiting or denying an adversary's information and decision systems.

Information Warfare

Actions taken to achieve information superiority by affecting adversary information, information-based processes, and information systems, while defending one's own information, information-based processes, and information systems.

Intelligence

The product resulting from the processing of information concerning foreign nations, hostile or potentially hostile forces or elements, or areas of actual or potential operations. The term is also applied to the activity which results in the product and the organizations engaged in such activity. **(AAP-6)**

Intelligence Preparation of the Battlefield

A systematic and continuous process that describes the tactical environment, the effects of that environment on operations and what the enemy can accomplish.

Joint

A qualifier used to indicate that a military activity, operation or organization involves elements of two or more Services of a single country. **(CFP(J)5(4))**

Joint Operation Planning Process

A coordinated joint staff process used by a commander to determine the best method of accomplishing assigned tasks and to direct the action necessary to accomplish the mission. **(CFP(J)5(4))**

Liaison

The contact or intercommunication maintained between elements of military forces to ensure mutual understanding and unity of purpose and action. **(AAP-6)**

Lines of Communications

All the land, water, and air routes that connect an operating military force with one or more bases of operations, and along which supplies and reinforcements move. **(AAP-6)**

Logistics

The science of planning and carrying out the movement and maintenance of forces. In its most comprehensive sense, those aspects of military operations which deal with:

(a) design and development, acquisition, storage, movement, distribution, maintenance, evacuation, and disposition of material:

(b) movement, evacuation and hospitalization of personnel;

(c) acquisition or construction, maintenance, operation, and disposition of facilities;

(d) acquisition or furnishing of services; and

(e) medical and health service support. **(AAP-6)**

(ADTB Note: In Canadian operations, the movement, evacuation and hospitalization of personnel are not logistic functions.)

Main Effort

A concentration of forces or means, in a particular area, where a commander seeks to bring about a decision.

Management

The use of a range of techniques to enhance the planning, organization and execution of operations, logistics, administration and procurement.

Manoeuvre

Employment of forces on the battlefield through movement in combination with fire, or fire potential, to achieve a position of advantage in respect to the enemy in order to accomplish the mission. **(AAP-6)**

Manoeuvre Warfare

A warfighting philosophy that seeks to defeat the enemy by shattering his moral and physical cohesion – his ability to fight as an effective, coordinated whole – rather than by destroying him physically through incremental attrition.

Mission

A clear, concise statement of the task of the command and its purpose. **(AAP-6)**

Mission Analysis

A rational process to determine an estimate's aim or the scope of the task.

Multinational Operation

An operation conducted by forces of two or more allied nations acting together for the accomplishment of a single mission. **(AAP-6)** (Preferred term to AAP-6 definition of synonym Combined Operation to avoid confusion with Combined Arms)

Operation

A military action or the carrying out of a strategic tactical service, training or administrative military mission; the process of carrying on combat, including movement, supply, attack, defence and manoeuvres needed to gain the objectives of any battle or campaign. **(AAP-6)**

Operation Order

A directive, usually formal, issued by a commander to subordinate commanders for the purpose of effecting the coordinated execution of an operation. **(AAP-6)**

Operation Planning Process

The process by which a commander, assisted by his staff, carries out the analysis of a given situation, decides on a plan of action, issues orders to his subordinates and prepares for further contingencies and actions.

Operational Art

The skill of employing military forces to attain strategic objectives in a theatre of war or theatre of operations through the design, organization and conduct of campaigns and major operations.

Operational Command

The authority granted to a commander to assign missions or tasks to subordinate commanders, to deploy units, to reassign forces and to retain or delegate operational and/or tactical control as may be deemed necessary. It does not of itself include responsibility for administration or logistics. OPCOM may also be used to denote the forces assigned to a commander. **(AAP-6)**

Operational Control

The authority granted to a commander to direct forces assigned so that the commander may accomplish specific missions or tasks which are usually limited by function, time, or location; to deploy units concerned, and to retain or assign tactical control of those units. It does not include authority to assign separate employment of components of the units concerned. Neither does it, of itself, include administrative or logistic control. **(AAP-6)**

Operational Level of War

The level of war at which campaigns and major operations are planned, conducted and sustained to accomplish strategic objectives within theatres or areas of operations. **(CFP(J)5(4))**

Operations Other Than War

Military operations during peacetime and conflict that do not necessarily involve armed clashes between two organized forces.

Priority Intelligence Requirements

Those intelligence requirements or which a commander has an anticipated and stated priority in his task of planning and decision making. **(AAP-6)**

Psychological Operations

Planned psychological activities in peace and war directed to enemy, friendly, and neutral audiences in order to influence attitudes and behaviour affecting the achievement of political and military objectives. They include strategic psychological activities, psychological consolidation activities, and battlefield psychological activities. **(AAP-6)**

Public Affairs

The ongoing effort to establish a public understanding of Armed Forces' policies and actions in support of the government by providing timely and accurate information to national and international media and other target audiences. **(CFP(J)5(4))**

Rear Operations

Operations conducted behind friendly lines to assist in providing freedom of action and continuity of operations, logistics and battle command. They serve to sustain the current close and deep battles and to posture the forces for further operations.

RISTA

Reconnaissance, Surveillance, Intelligence and Target Acquisition. **(AAP-15)**

Rules of Engagement

Directions issued by competent military authority which delineate the circumstances and limitations within which armed force may be applied to achieve military objectives in furtherance of national policy. **(CFP(J)5(4))**

Sequel

Major operations that follow an initial major operation. Plans for sequels are based on the possible outcome—victory, stalemate or defeat—of the current operation.

Sequencing

The arrangement of events within a campaign in the order most likely to achieve the elimination of the enemy's centre of gravity.

Strategic Level of War

The level of war at which a nation or group of nations determines national or alliance security objectives and develops and uses national resources to accomplish those objectives. **(CFP(J)5(4))**

Strategy

The application of national (political, economic, social, technological, psychological and military) resources to achieve national policy objectives and to promote or protect national interests in peace, conflict and war.

Sustainment

The requirement for a military force to maintain its operational capability for the duration required to achieve its objectives. Sustainment consists of the continued supply of consumables, and the replacement of combat losses and non-combat attrition of equipment and personnel. **(CFP(J)5(4))**

Synchronization

The arrangement of military actions in time, space and purpose to produce maximum combat power at a decisive place and time. **(CFP(J)5(4))**

Tactical Command

The authority delegated to a commander to assign tasks to forces under his command for the accomplishment of the mission assigned by higher authority. **(AAP-6)**

Tactical Control

The detailed and, usually, local direction and control of movements or manoeuvre necessary to accomplish missions or tasks assigned. **(AAP-6)**

Tactical Level of War

The level of war at which battles and engagements are planned and executed to accomplish military objectives assigned to tactical units or task forces.

Targeting

The process of selecting targets and matching the appropriate response to them taking account of operational requirements and capabilities. **(AAP-6)**

Technical Control

The control applied largely to administrative or technical procedures and exercised by virtue of professional or technical jurisdiction. It parallels command channels but is restricted to control within certain specialized areas such as legal, medical or communications. Operational commanders may override this type of control any time its application is seen to jeopardize the mission of the military force. **(CFP(J)5(4))**

Tempo

The rhythm or rate of activity in operations, relative to the enemy within tactical engagements and battles and between major operations. It incorporates the capacity of the force to transition from one operational posture to another.

Transfer of Command Authority

The formal transfer of a specified degree of authority over forces assigned to an operation between commanders of supporting commands and the supported commander. **(CFP(J)5(4))**

Warning Order

A preliminary notice of an order or action which is to follow. It is designed to give subordinate commanders time to make necessary plans and preparations. **(CFP(J)5(4))**

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